

TA-P9000ES

SERVICE MANUAL

US Model
Canadian Model
AEP Model



Photo: gold type

SPECIFICATIONS

Audio section

Harmonic distortion

Less than 0.001%
(20 Hz ~ 20 kHz, at 1V (network A))

Frequency response

10 Hz ~ 100 kHz +0/-1.0 dB

Signal-to-noise ratio

115 dB (20 kHz LPF, A) *
* 1.3 V input level

Inputs

Input Jacks	Sensitivity	Impedance
INPUT 1	150 mV	20 kilohms
INPUT 2	150 mV	20 kilohms
BYPASS 5.1ch	—	—
BYPASS 2ch	—	—

Outputs (PRE OUT)

Output Jack	Sensitivity	Impedance
FRONT L/R	1 V	100 ohms
CENTER	1 V	100 ohms
REAR L/R	1 V	100 ohms
WOOFER	1 V	100 ohms

General

Power requirements

120 V AC, 60Hz (US, Canadian models)
220 – 230 V AC, 50/60 Hz (AEP model)

Power consumption

20 W

Dimensions 17 × 5 × 15^{3/8} in. (430 × 124 × 388 mm)
including projecting parts and controls

Mass (Approx.)

21 lbs 3 oz (9.6 kg)

Supplied accessories

- Audio cord (3)
- Remote commander RM-P9000 (remote) (1)
- LR6 (size-AA) alkaline batteries (2)
- Control A1 connecting cord (1)

Design and specifications are subject to change without notice.

MULTICHANNEL PRE AMPLIFIER



SONY®

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

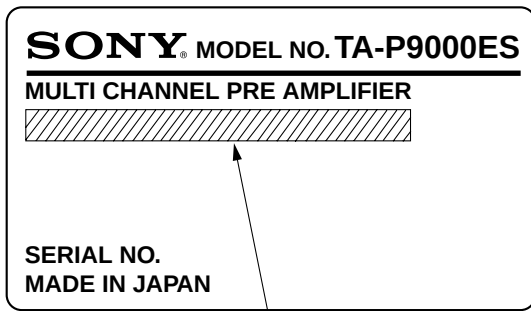
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 SERVICING NOTES

MODEL IDENTIFICATION

– Specification Label –



US, Canadian models : AC 120V 60Hz 20W
AEP model : AC 220 - 230V 50/60Hz 20W

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

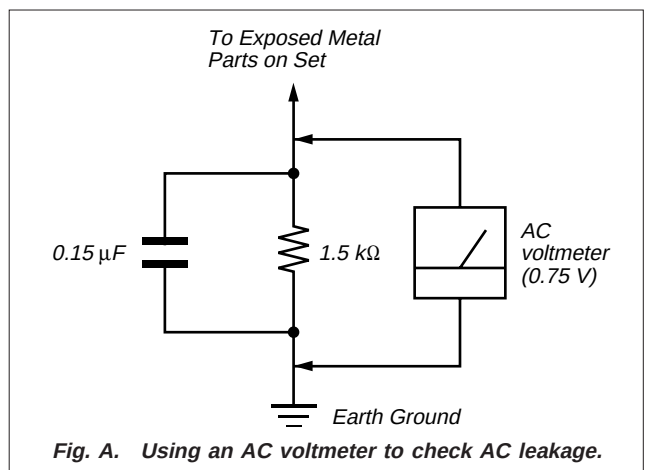
SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer: Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

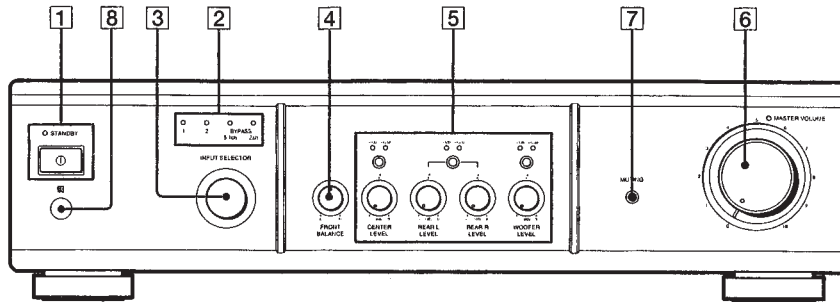
1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



SECTION 2 GENERAL

This section is extracted from instruction manual.

Front Panel Parts Description



1 ① switch

Press to turn the pre amplifier on and off.

- Before you turn on the pre amplifier, make sure that you have turned the MASTER VOLUME control to the leftmost position to avoid damaging your speakers.

STANDBY indicator

Lights when the pre amplifier is turned off (standby mode) using the supplied remote. Blinks momentarily after ① is pressed to turn the unit on, then goes out to indicate that the unit is ready.

2 Input indicators

Light to indicate the current input.

3 INPUT SELECTOR control

Turn to select the input you want to use.

To select	Turn to light
INPUT 1	1
INPUT 2	2
BYPASS 5.1ch	BYPASS 5.1ch*
BYPASS 2ch	BYPASS 2ch

After selecting the input, turn on the component(s) connected to the input you selected and play the program source.

- * The audio signal input to the BYPASS 5.1ch jacks is output from the PRE OUT jacks even when this unit's power is turned off.

4 FRONT BALANCE control

Rotate to adjust the balance of the front speakers.

Note

When BYPASS 5.1ch or 2ch is selected, use the balance control on your control amplifier (Sony TA-E9000ES, etc.) to adjust the balance of the front speakers.

5 CENTER, REAR L, REAR R, WOOFER LEVEL controls

Rotate to adjust the center, rear, and woofer levels.

Gain buttons

Press repeatedly to select the gain as follows:

+6dB → +12dB → 0dB

Use to increase the level of the respective channel relative to the level of the front channels.

Gain indicators

The respective indicator lights when the gain is increased to +6dB or +12dB.

6 MASTER VOLUME control

Turn to adjust the volume when INPUT 1 or INPUT 2 is selected. The indicator on the MASTER VOLUME indicator lights to show that the volume can be adjusted. The indicator does not light and the volume cannot be adjusted when BYPASS 5.1ch or 2ch is selected.

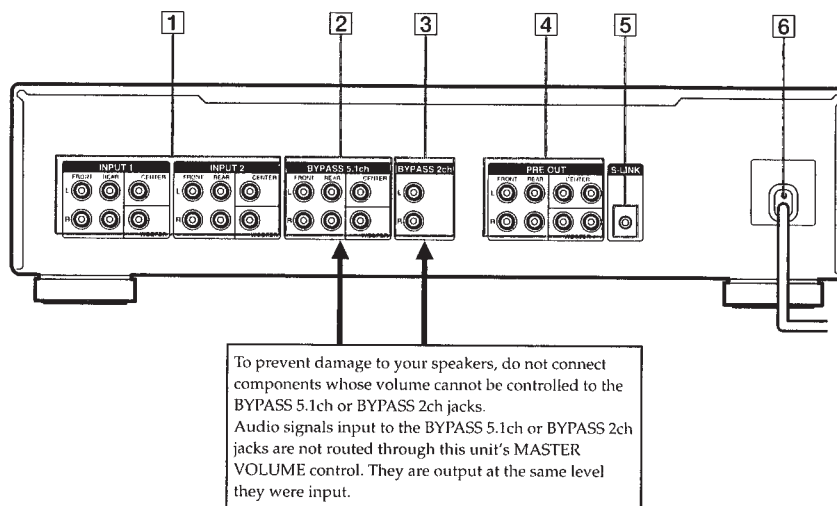
7 MUTING button

Press to mute the sound. The indicator lights up when the sound is muted.

8 IR receptor

Receives signals emitted by the remote.

Rear Panel Parts Description



To prevent damage to your speakers, do not connect components whose volume cannot be controlled to the BYPASS 5.1ch or BYPASS 2ch jacks. Audio signals input to the BYPASS 5.1ch or BYPASS 2ch jacks are not routed through this unit's MASTER VOLUME control. They are output at the same level they were input.

1 INPUT 1 and 2 jacks

Connect to the 5.1ch OUTPUT jacks on your DVD player or secondary multi channel decoder (etc.) (see page 7).

2 BYPASS 5.1ch jacks

Connect to the pre out jacks on a multi channel control amplifier (see page 5). Signals input to the BYPASS 5.1ch jacks are output though the PRE OUT jacks (4) when the power is turned off.

3 BYPASS 2ch jacks

Connect to the pre out jacks on a stereo control amplifier (see page 7).

4 PRE OUT jacks

Connect to your power amplifier(s) (see page 6).

5 S-LINK jack

Use to turn the TA-N9000ES power amplifier on/off automatically whenever you turn this unit on/off using the supplied remote (see page 8).

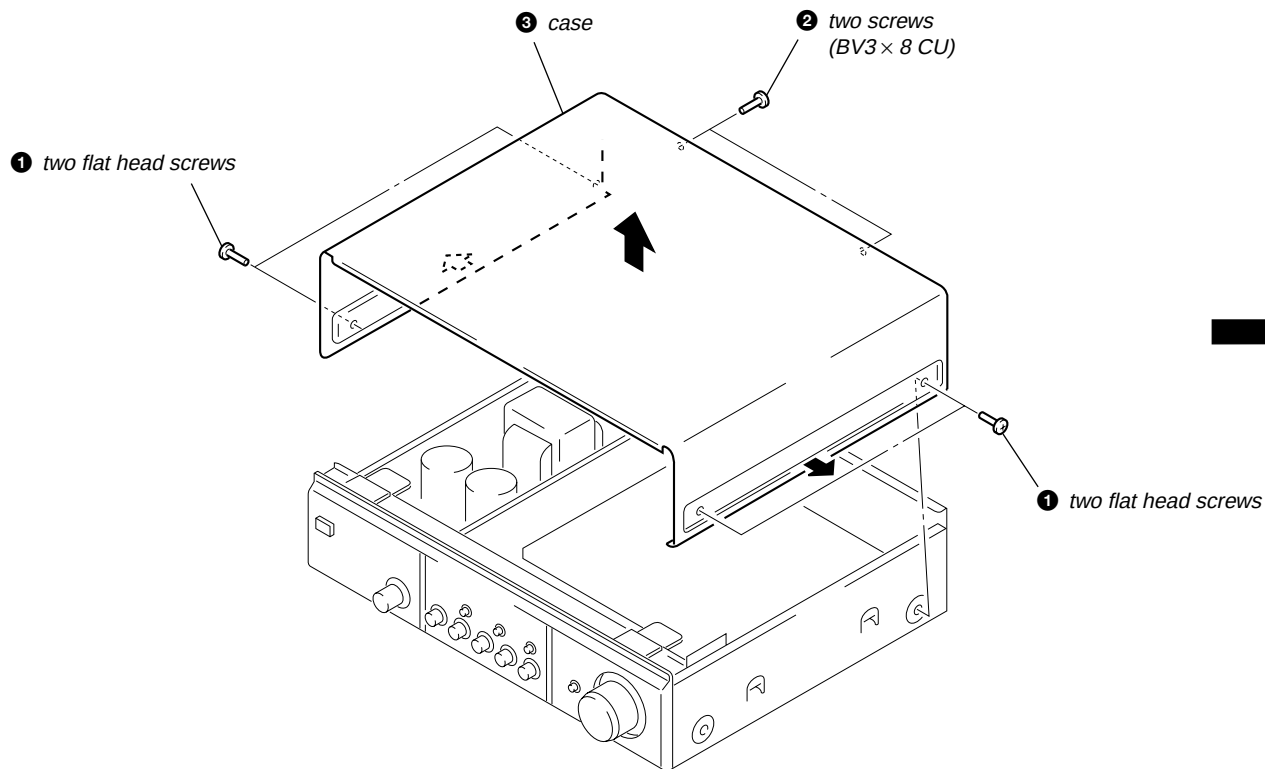
6 AC power cord

Connect to a wall outlet.

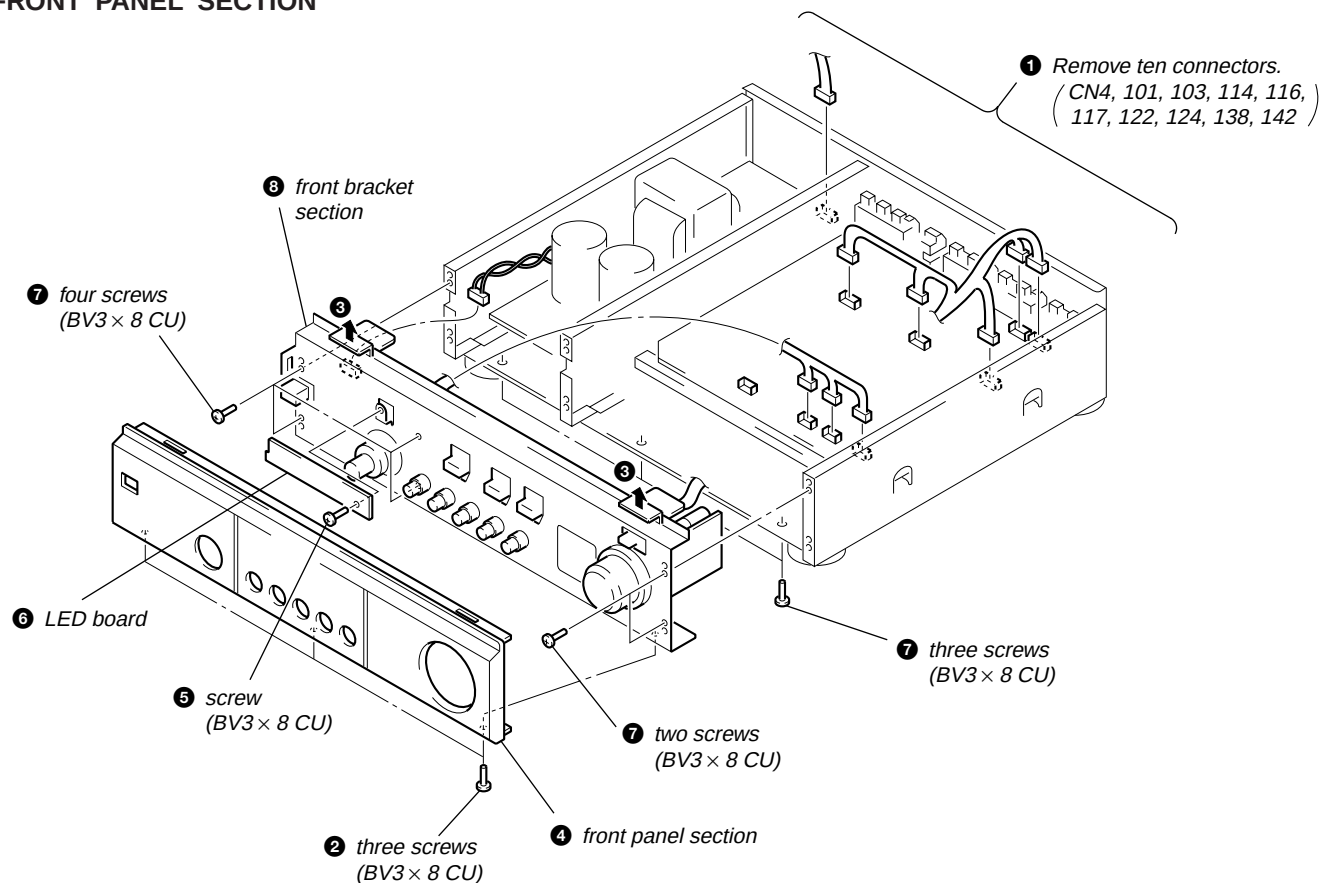
SECTION 3 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

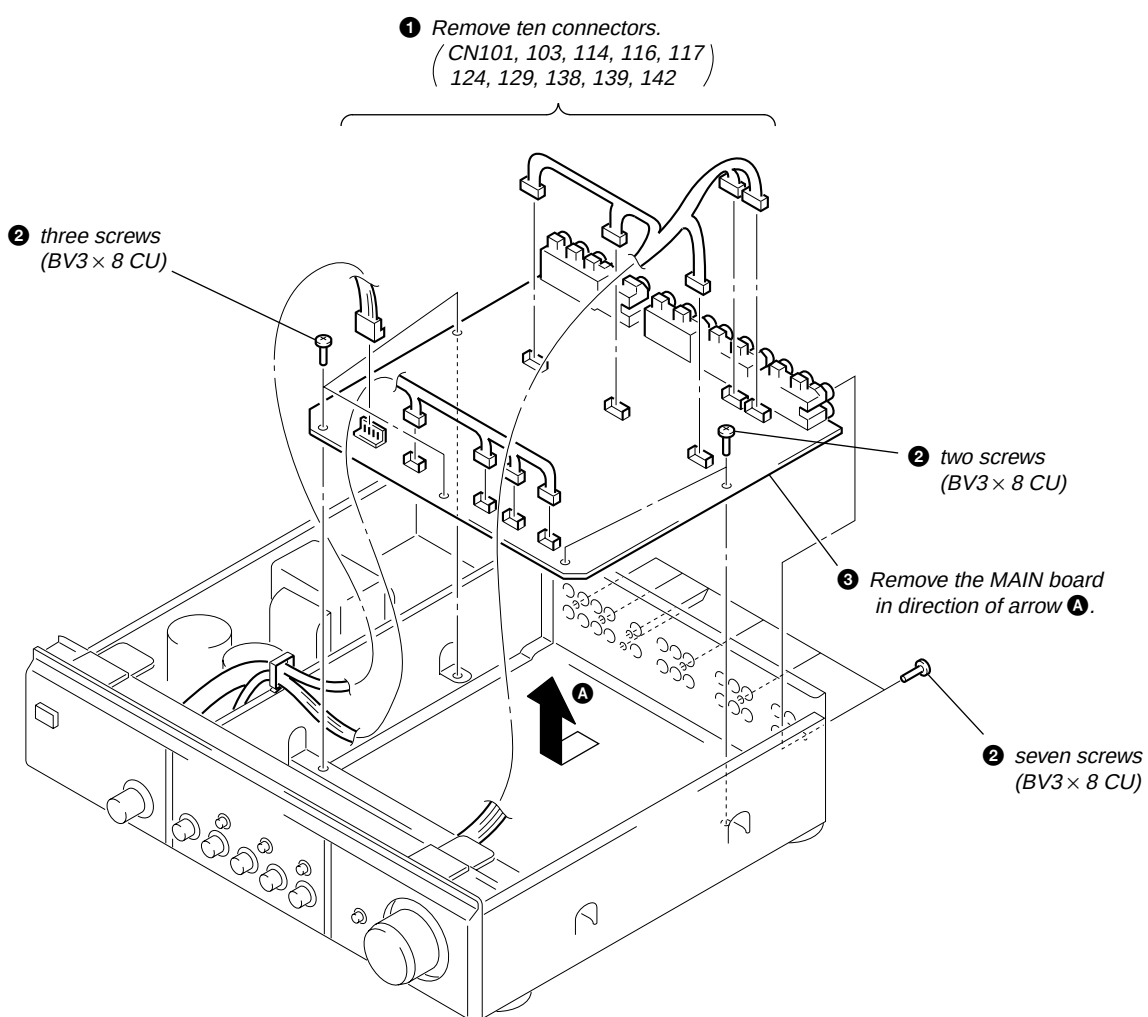
CASE



FRONT PANEL SECTION



MAIN BOARD



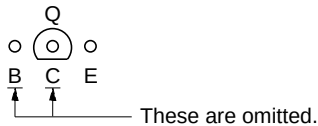
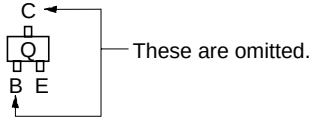
SECTION 4

DIAGRAMS

4-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

-  : parts extracted from the component side.
-  : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)
- Indication of transistor.



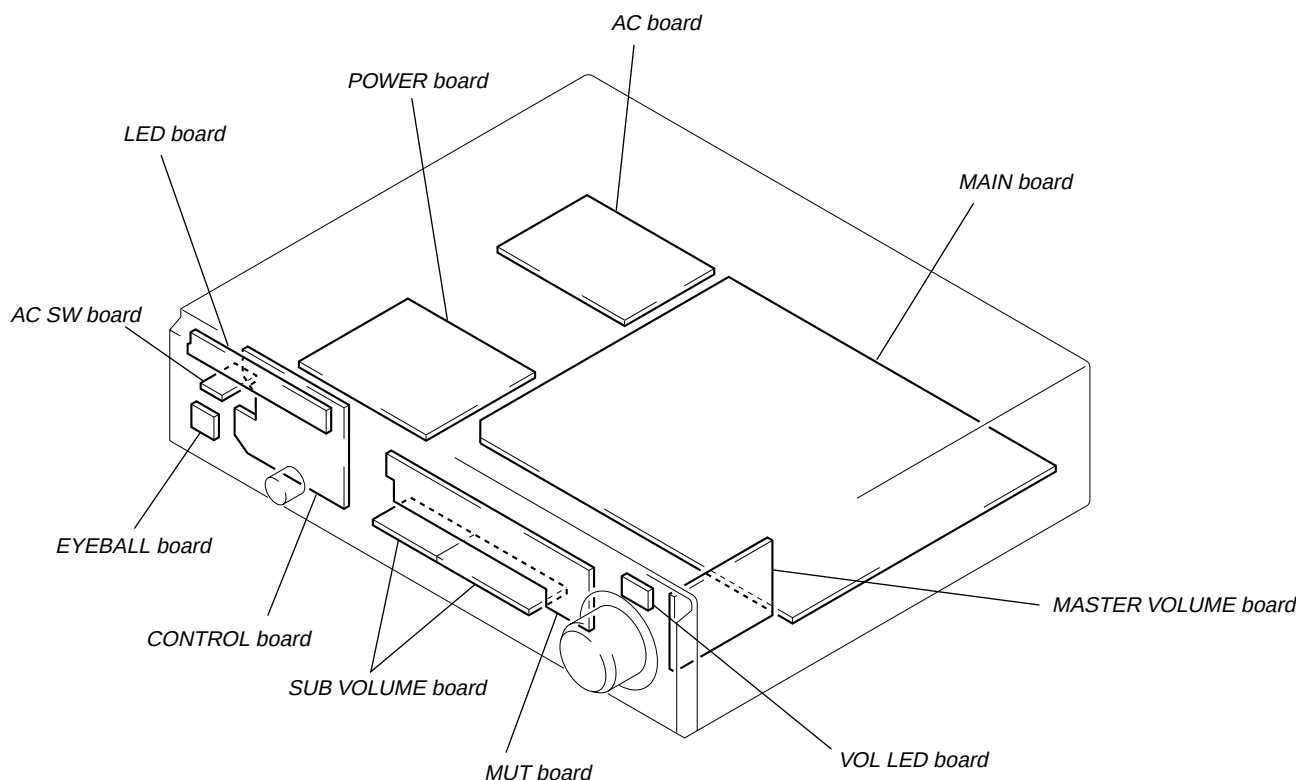
Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
-  : internal component.
-  : fusible resistor.
-  : panel designation.

Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.	Note: Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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-  : B+ Line.
-  : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 : AUDIO

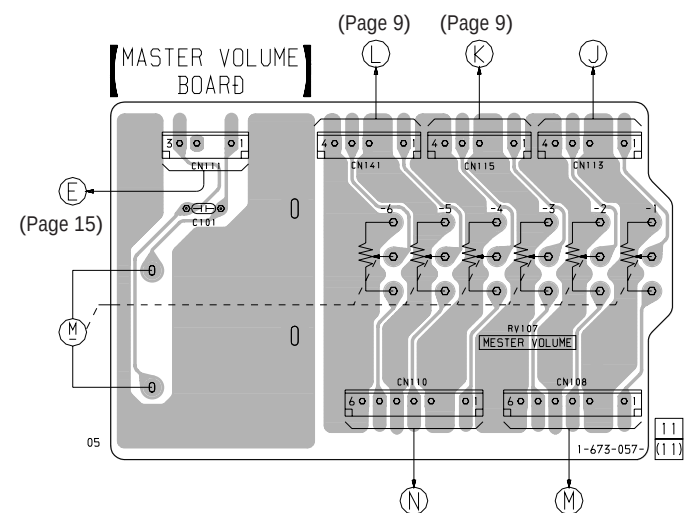
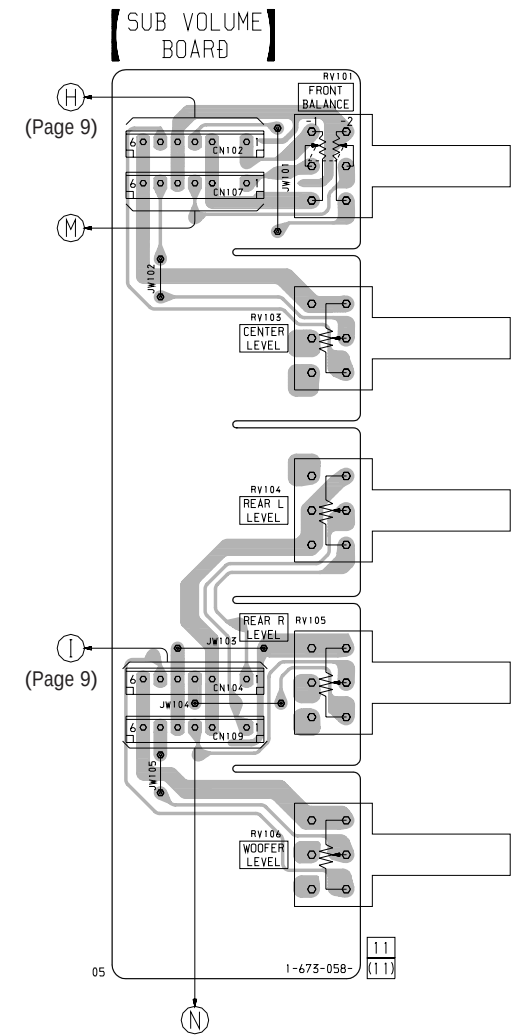
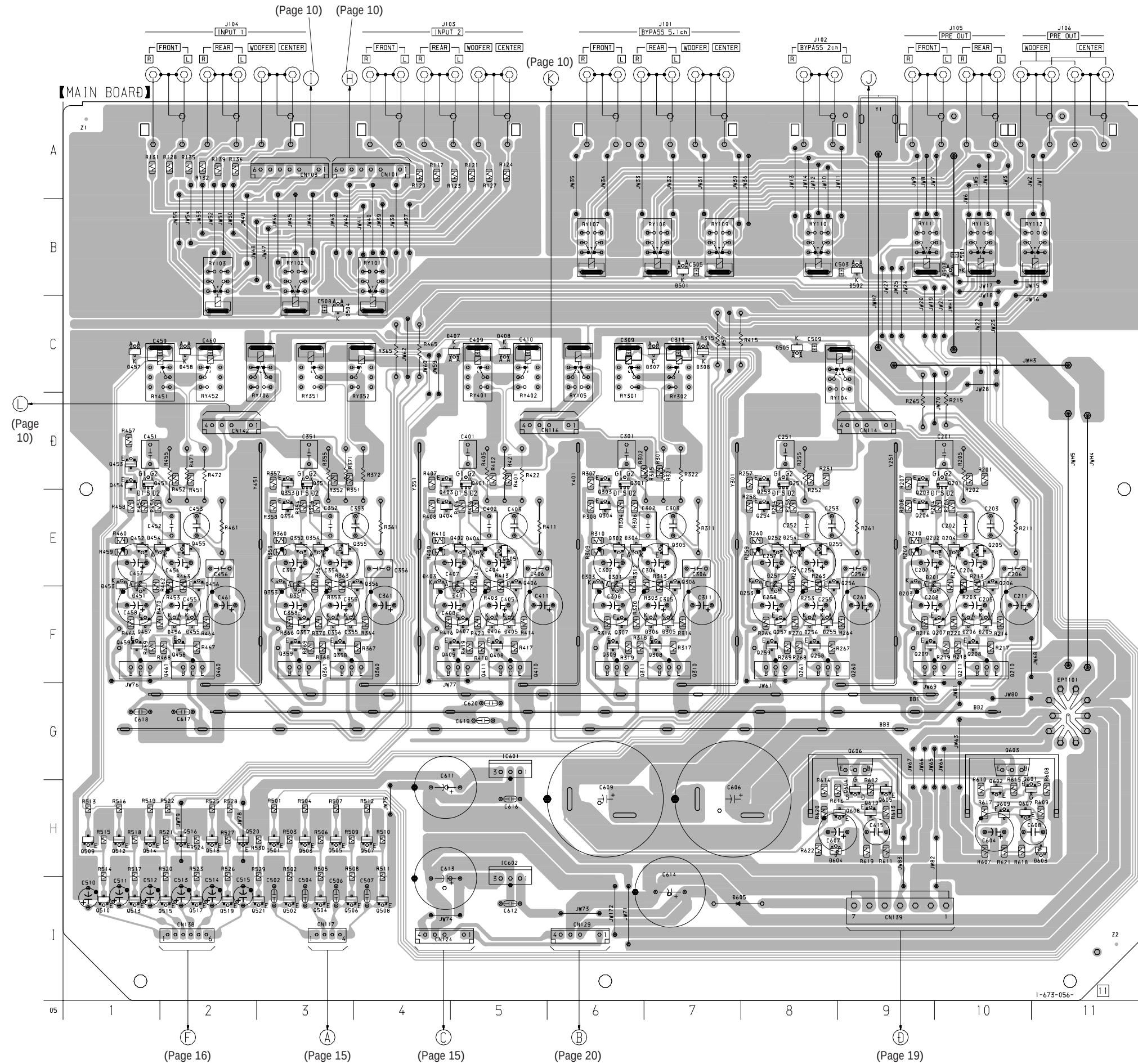
• Circuit Boards Location



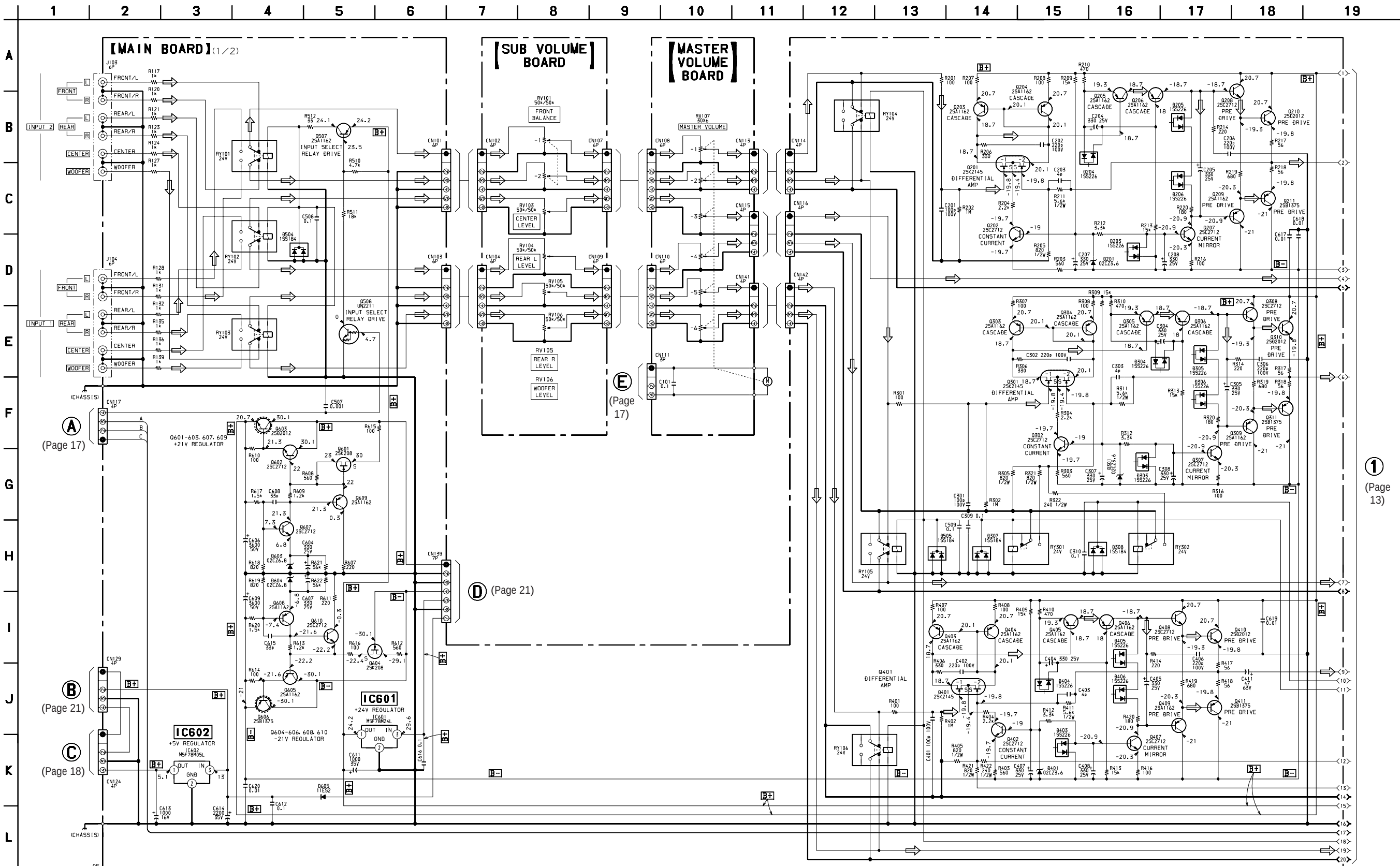
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D201	E-9	D502	B-9	Q305	E-7	Q459	F-1
D203	F-9	D503	B-10	Q306	E-7	Q460	F-2
D204	E-10	D504	C-3	Q307	F-6	Q461	F-1
D205	F-10	D505	C-8	Q308	F-7	Q501	H-3
D206	F-10	D603	H-11	Q309	F-6	Q502	I-3
D251	E-8	D604	H-8	Q310	F-7	Q503	H-3
D253	E-8	D605	I-7	Q311	F-6	Q504	I-3
D254	E-8			Q351	D-3	Q505	H-3
D255	F-8	IC601	G-5	Q352	E-3	Q506	I-3
D256	F-8	IC602	H-5	Q353	D-3	Q507	H-4
D301	E-6			Q354	E-3	Q508	I-4
D303	E-6	Q201	D-10	Q355	E-3	Q509	H-1
D304	E-6	Q202	E-10	Q356	E-4	Q510	I-1
D305	F-7	Q203	D-9	Q357	F-3	Q512	H-1
D306	F-7	Q204	E-9	Q358	F-3	Q513	I-1
D307	C-7	Q205	E-10	Q359	F-3	Q514	H-1
D308	C-7	Q206	E-10	Q360	F-3	Q515	I-2
D351	F-3	Q207	F-10	Q361	F-3	Q516	H-2
D353	F-3	Q208	F-10	Q401	D-5	Q517	I-2
D354	E-3	Q209	F-9	Q402	E-5	Q518	H-2
D355	F-3	Q210	F-10	Q403	D-4	Q519	I-2
D356	F-3	Q211	F-9	Q404	E-4	Q520	H-2
D401	E-5	Q251	D-8	Q405	E-5	Q521	I-3
D403	E-4	Q252	E-8	Q406	E-5	Q601	H-10
D404	E-5	Q253	D-8	Q407	F-5	Q602	H-10
D405	F-5	Q254	E-8	Q408	F-5	Q603	G-10
D406	F-5	Q255	E-8	Q409	F-5	Q604	H-9
D407	C-5	Q256	E-8	Q410	F-5	Q605	H-9
D408	C-5	Q257	F-8	Q411	F-5	Q606	G-9
D451	F-1	Q258	F-8	Q451	D-1	Q607	H-10
D453	F-1	Q259	F-8	Q452	E-1	Q608	H-9
D454	E-1	Q260	F-8	Q453	D-1	Q609	H-10
D455	F-2	Q261	F-8	Q454	D-1	Q610	H-9
D456	F-2	Q301	D-6	Q455	E-2		
D457	C-1	Q302	E-6	Q456	E-2		
D458	C-2	Q303	D-6	Q457	F-1		
D501	B-7	Q304	E-6	Q458	F-2		

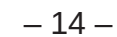
4-2. PRINTED WIRING BOARDS – MAIN Board/SUB VOLUME Board/MASTER VOLUME Board – • See page 8 for Circuit Boards Location.



4-3. SCHEMATIC DIAGRAM – MAIN Board (1/2)/SUB VOLUME Board/MASTER VOLUME Board –



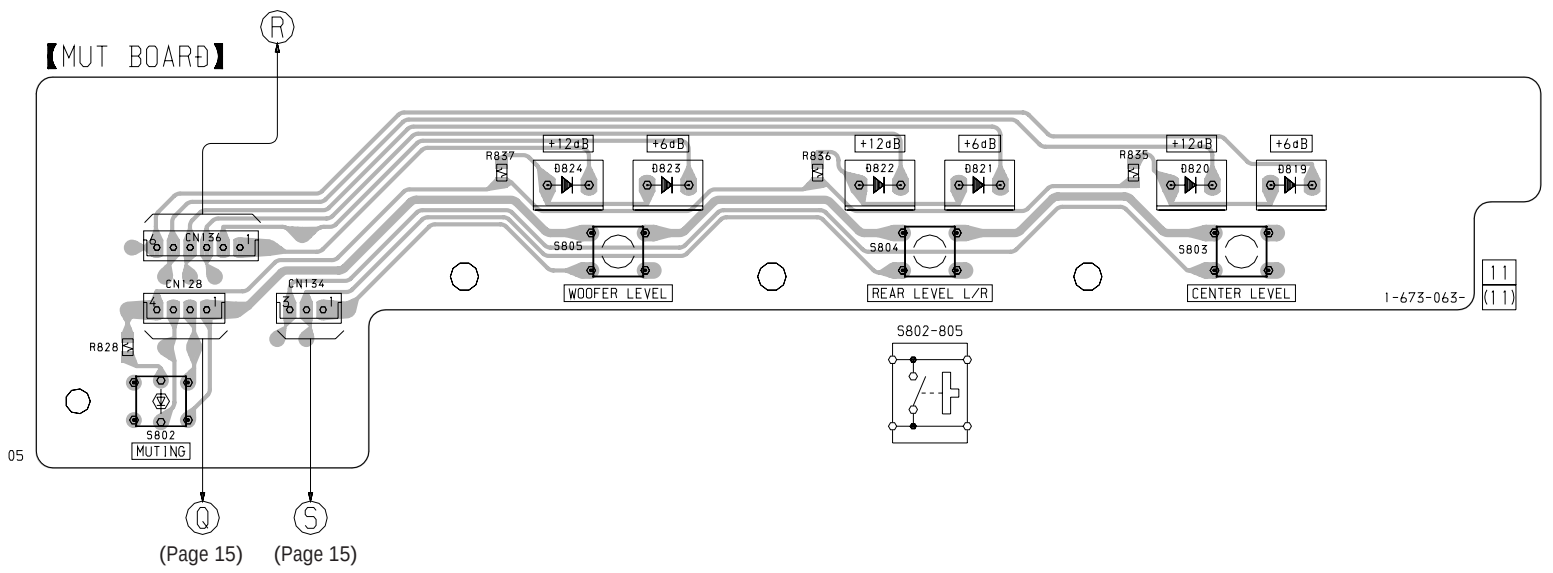
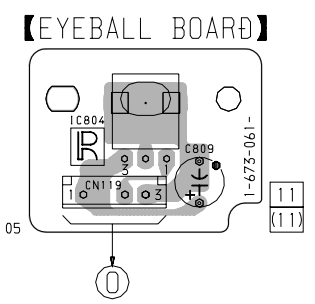
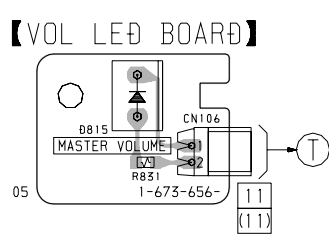
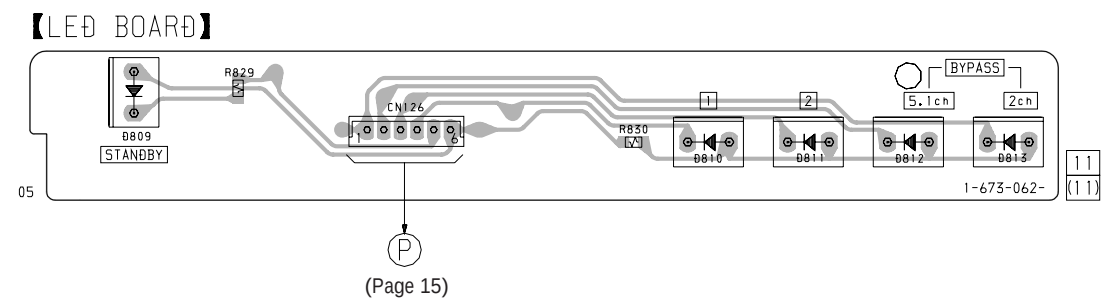
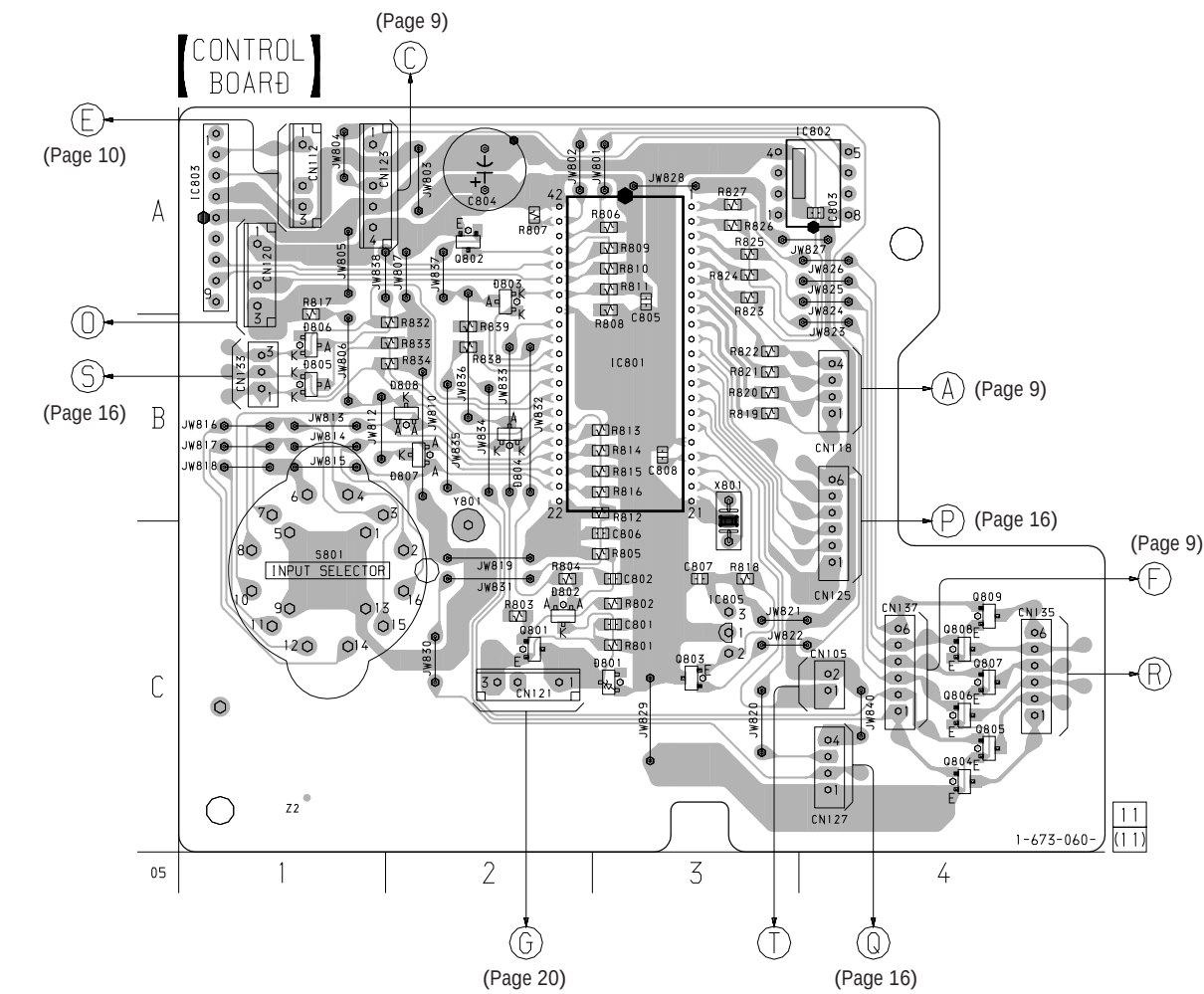
- 14 -



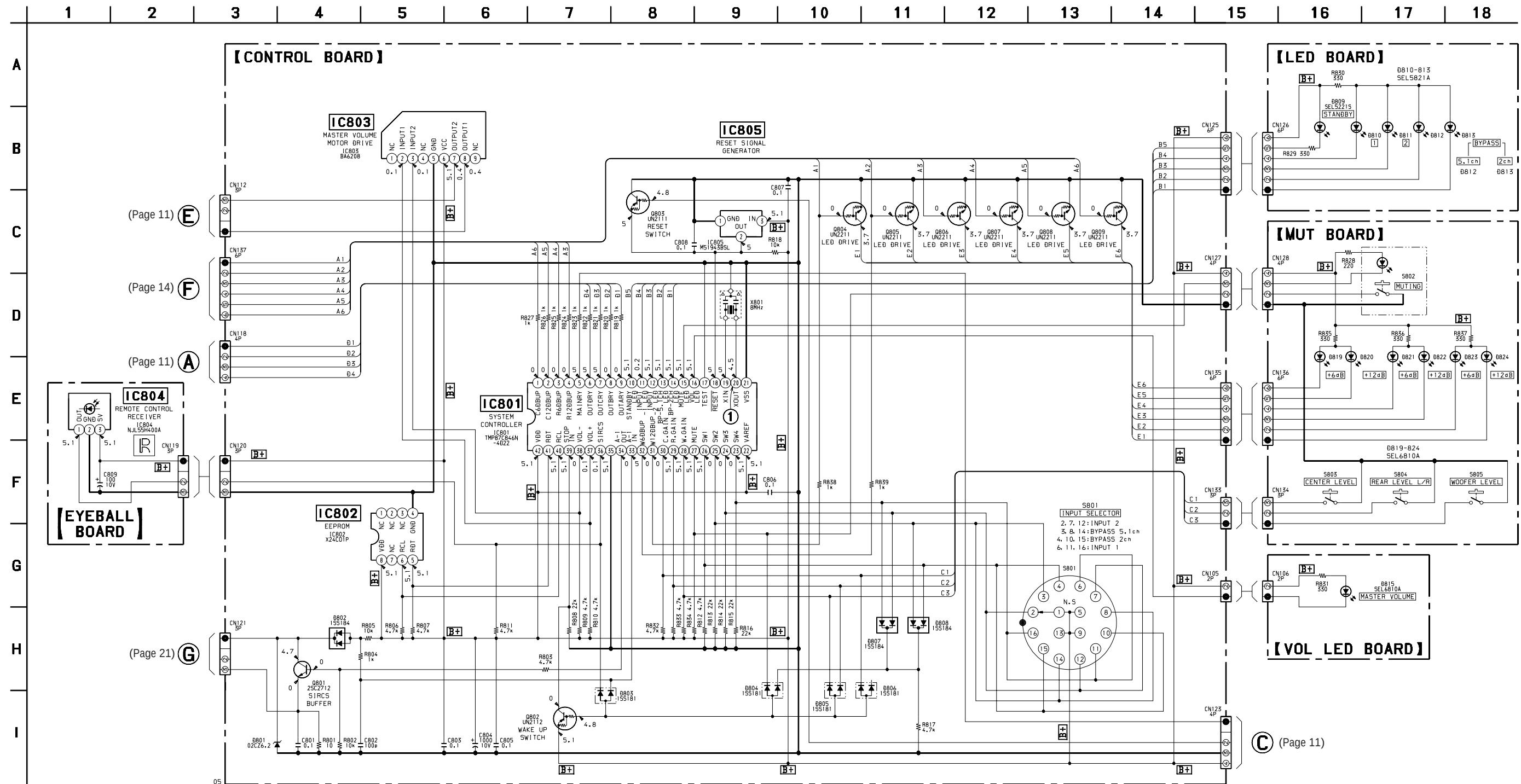
4-5. PRINTED WIRING BOARDS – PANEL Section – • See page 8 for Circuit Boards Location.

• Semiconductor Location

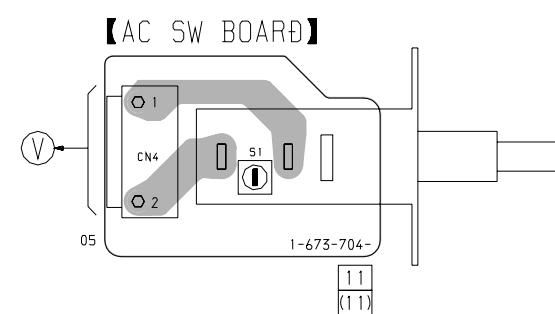
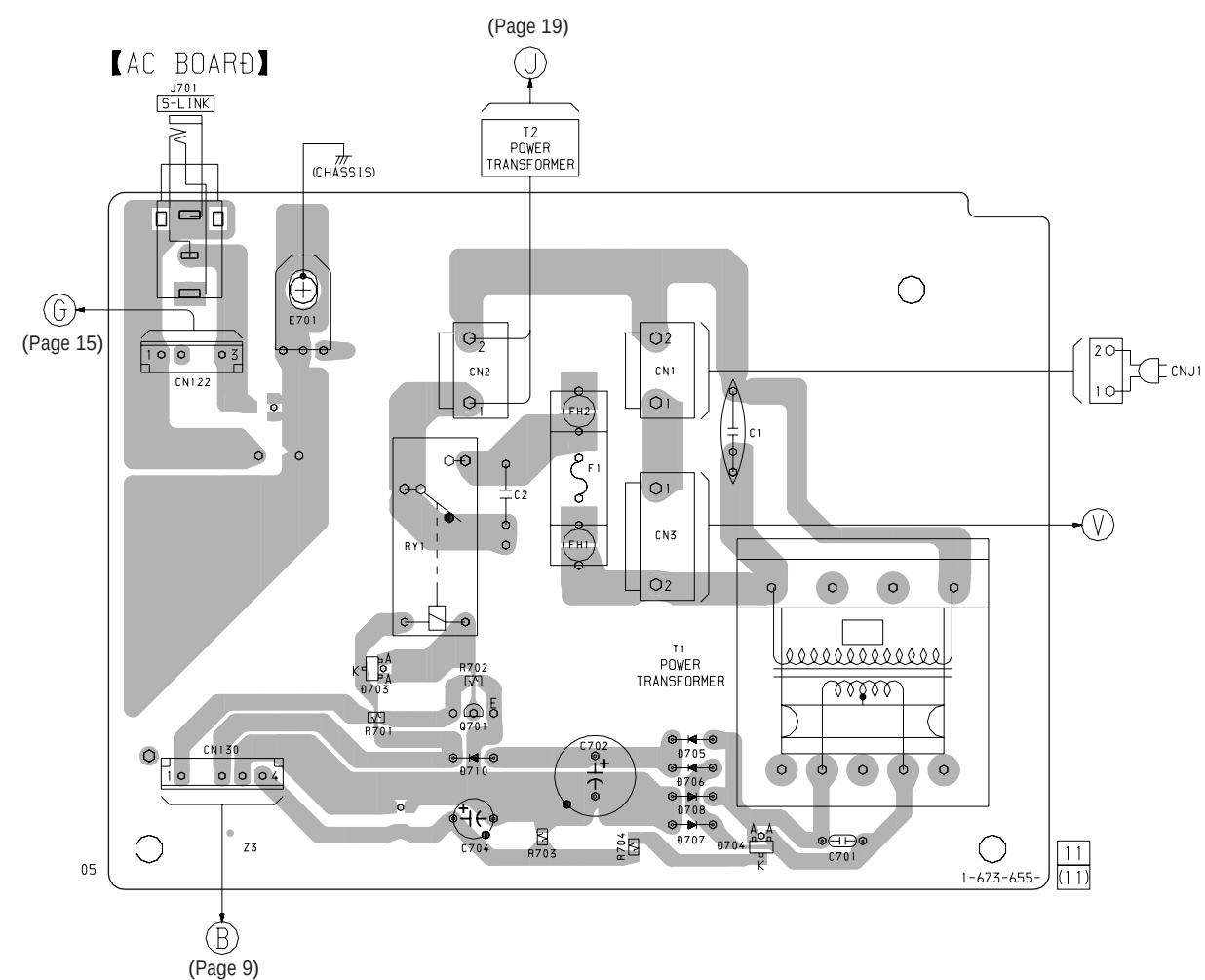
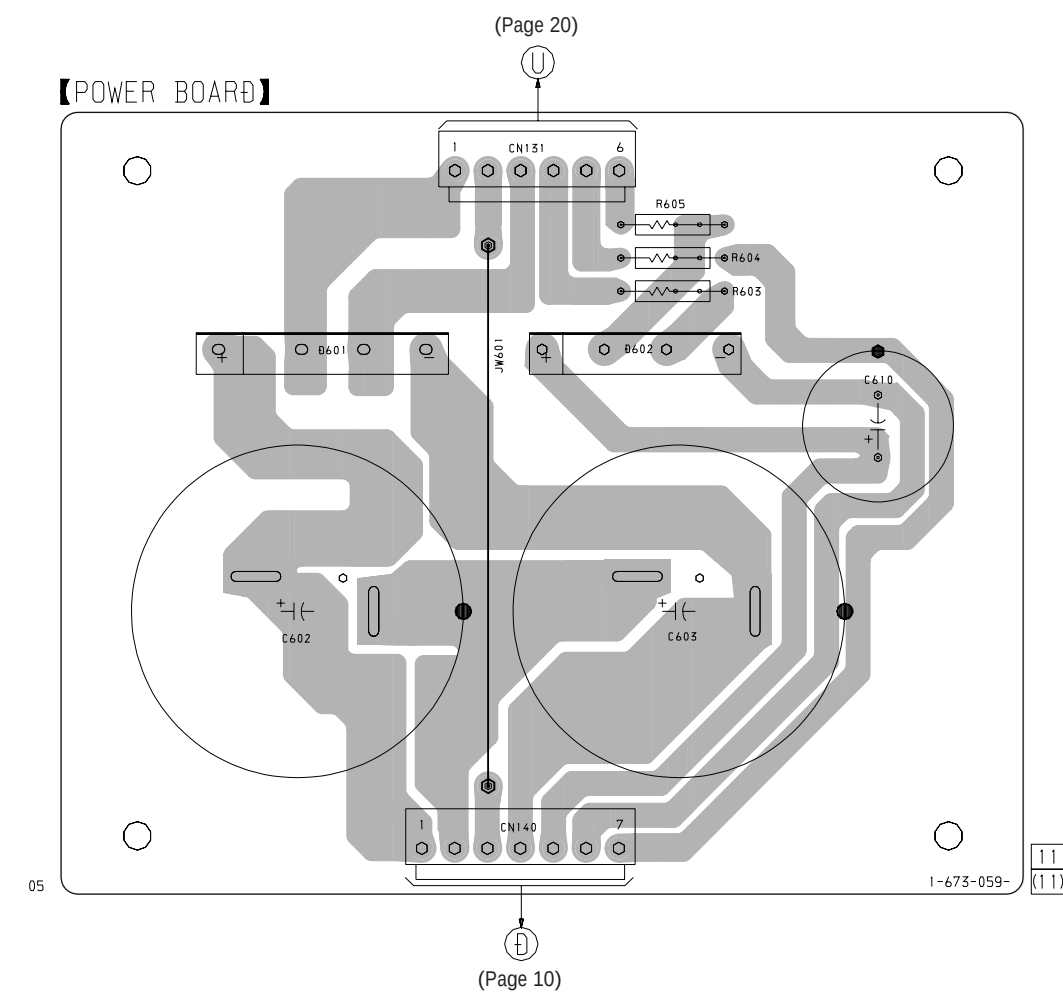
Ref. No.	Location
D801	C-3
D802	C-2
D803	A-2
D804	B-2
D805	B-1
D806	B-1
D807	B-2
D808	B-2
IC801	B-3
IC802	A-4
IC803	A-1
IC805	C-3
Q801	C-2
Q802	A-2
Q803	C-3
Q804	C-4
Q805	C-4
Q806	C-4
Q807	C-4
Q808	C-4
Q809	C-4



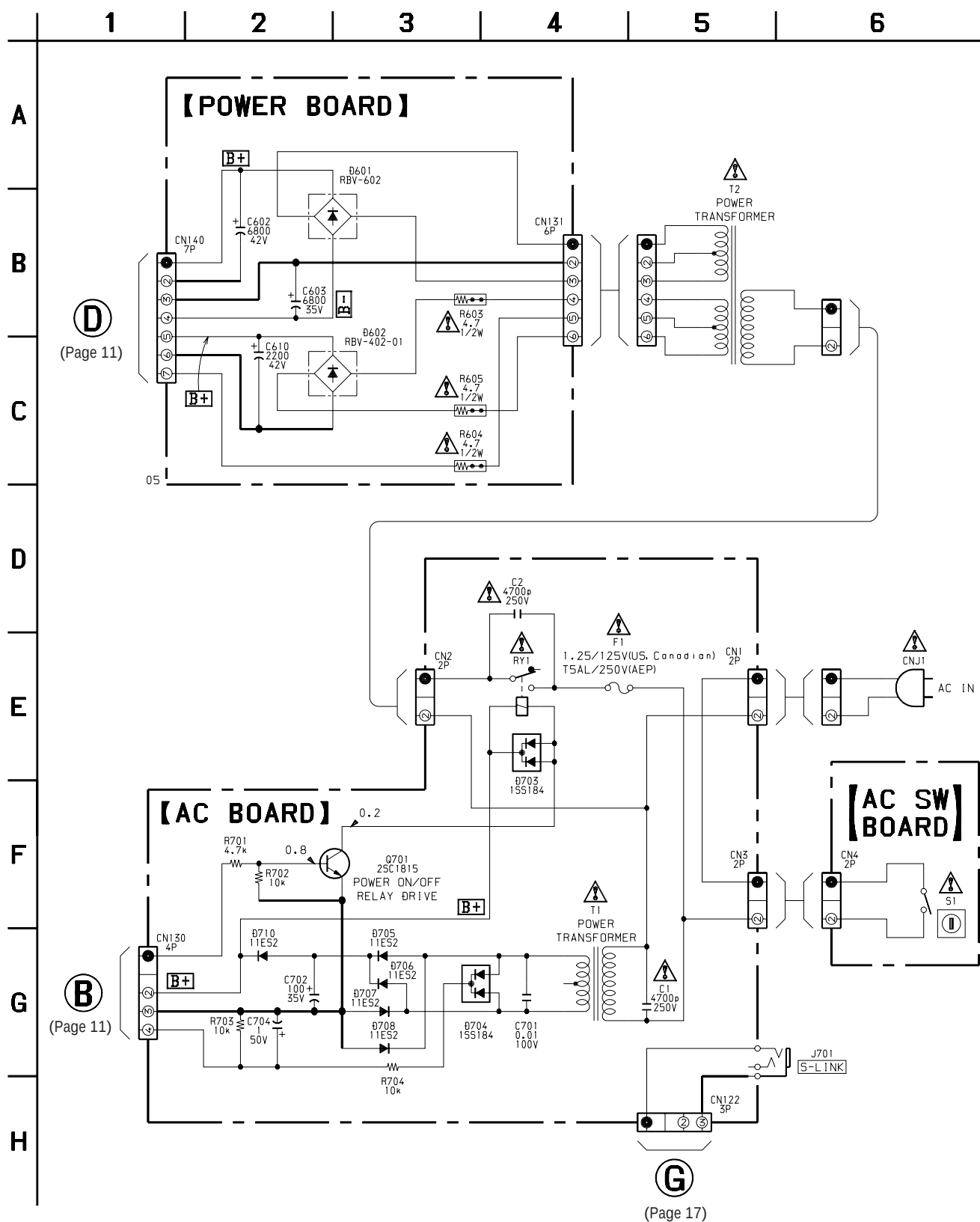
4-6. SCHEMATIC DIAGRAM – PANEL Section – • See page 22 for Waveform. • See page 22 for IC Block Diagram.



4-7. PRINTED WIRING BOARDS – POWER Section – • See page 8 for Circuit Boards Location.



4-8. SCHEMATIC DIAGRAM – POWER Section –

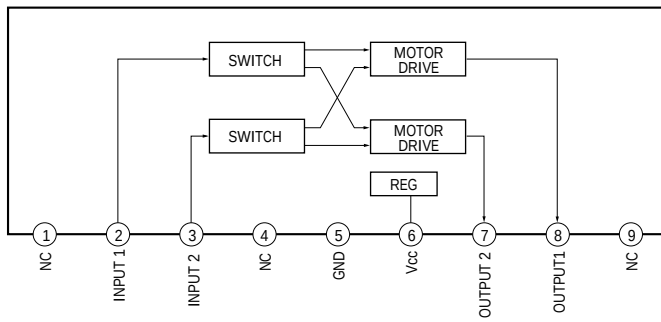


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

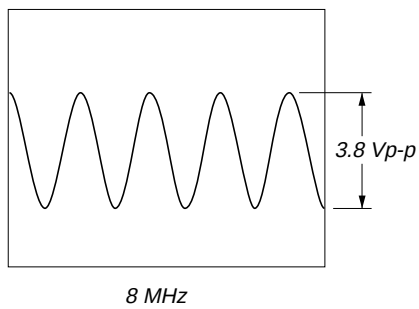
- IC Block Diagram
- CONTROL Board –

IC803 BA6208



- Waveform
- CONTROL Board –

❶ IC801 ②⑩ (X-OUT)



4-9. IC PIN FUNCTION DESCRIPTION

• CONTROL BOARD IC801 TMP87C846N-4D22 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	C6DBUP	O	Relay drive signal output for the +6 dB gain control (for CENTER input signal) “H”: +6 dB on
2	C12DBUP	O	Relay drive signal output for the +12 dB gain control (for CENTER input signal) “H”: +12 dB on
3	R6DBUP	O	Relay drive signal output for the +6 dB gain control (for REAR input signal) “H”: +6 dB on
4	R12DBUP	O	Relay drive signal output for the +12 dB gain control (for REAR input signal) “H”: +12 dB on
5	MAINRY	O	Relay drive signal output for the power on/off control “L”: standby mode, “H”: power on
6	OUTDRY	O	Relay drive signal output for the INPUT 1 or 2 signal “L”: INPUT 2, “H”: INPUT 1
7	OUTCRY	O	Relay drive signal output for the output protect “L”: protect, “H”: releasing of protect
8	OUTBRY	O	Relay drive signal output for the BYPASS 2ch input signal “H”: BYPASS 2ch on
9	OUTARY	O	Relay drive signal output for the BYPASS 5.1ch input signal “H”: BYPASS 5.1ch on
10	STANDBY LED	O	LED drive signal output of the STANDBY LED (D809) “L”: LED on
11	INPUT-1 LED	O	LED drive signal output of the input 1 LED (D810) “L”: LED on
12	INPUT-2 LED	O	LED drive signal output of the input 2 LED (D811) “L”: LED on
13	BP-5.1CH LED	O	LED drive signal output of the BYPASS 5.1ch input LED (D812) “L”: LED on
14	BP-2CH LED	O	LED drive signal output of the BYPASS 2ch input LED (D813) “L”: LED on
15	MUTE LED	O	LED drive signal output of the MUTING LED (LED on S802) “L”: LED on
16	VOL LED	O	LED drive signal output of the master volume LED (D815) “L”: LED on
17	TEST	I	Test input terminal (fixed at “L”)
18	<u>RESET</u>	I	System reset signal input from the reset signal generator (IC805) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
19	XIN	I	Main system clock input terminal (8 MHz)
20	XOUT	O	Main system clock output terminal (8 MHz)
21	VSS	—	Ground terminal
22	VAREF	I	Reference voltage (+5V) input terminal
23	SW4	I	INPUT SELECTOR switch (S801) input terminal “H”: input 1
24	SW3	I	INPUT SELECTOR switch (S801) input terminal “H”: input 2
25	SW2	I	INPUT SELECTOR switch (S801) input terminal “H”: BYPASS 5.1ch input
26	SW1	I	INPUT SELECTOR switch (S801) input terminal “H”: BYPASS 2ch input
27	MUTE	I	MUTING switch (S802) input terminal “L” is input when key pressing
28	W. GAIN	I	WOOFER LEVEL up switch (S805) input terminal “L” is input when key pressing
29	R. GAIN	I	REAR L/R LEVEL up switch (S804) input terminal “L” is input when key pressing
30	C. GAIN	I	CENTER LEVEL up switch (S803) input terminal “L” is input when key pressing
31	W12DBUP	O	Relay drive signal output for the +12 dB gain control (for WOOFER input signal) “H”: +12 dB on
32	W6DBUP	O	Relay drive signal output for the +6 dB gain control (for WOOFER input signal) “H”: +6 dB on
33	A-1 IN	I	Sircs remote control signal input for the S-LINK control A1
34	A-1 OUT	O	Sircs remote control signal output for the S-LINK control A1
35	—	I	Not used (fixed at “L”)
36	SIRCS	I	Remote control signal input from the remote control receiver (IC804)
37	VOL+	O	Motor drive signal output to the volume motor drive (IC803) (volume up direction)
38	VOL-	O	Motor drive signal output to the volume motor drive (IC803) (volume down direction)
39	STOP IN	I	Trigger input terminal
40	RCL	O	Serial clock signal output to the EEPROM (IC802)
41	RDT	I/O	Two-way data bus with the EEPROM (IC802)
42	VDD	—	Power supply terminal (+5V)

SECTION 5

EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) . . . (RED)

↑
Parts Color

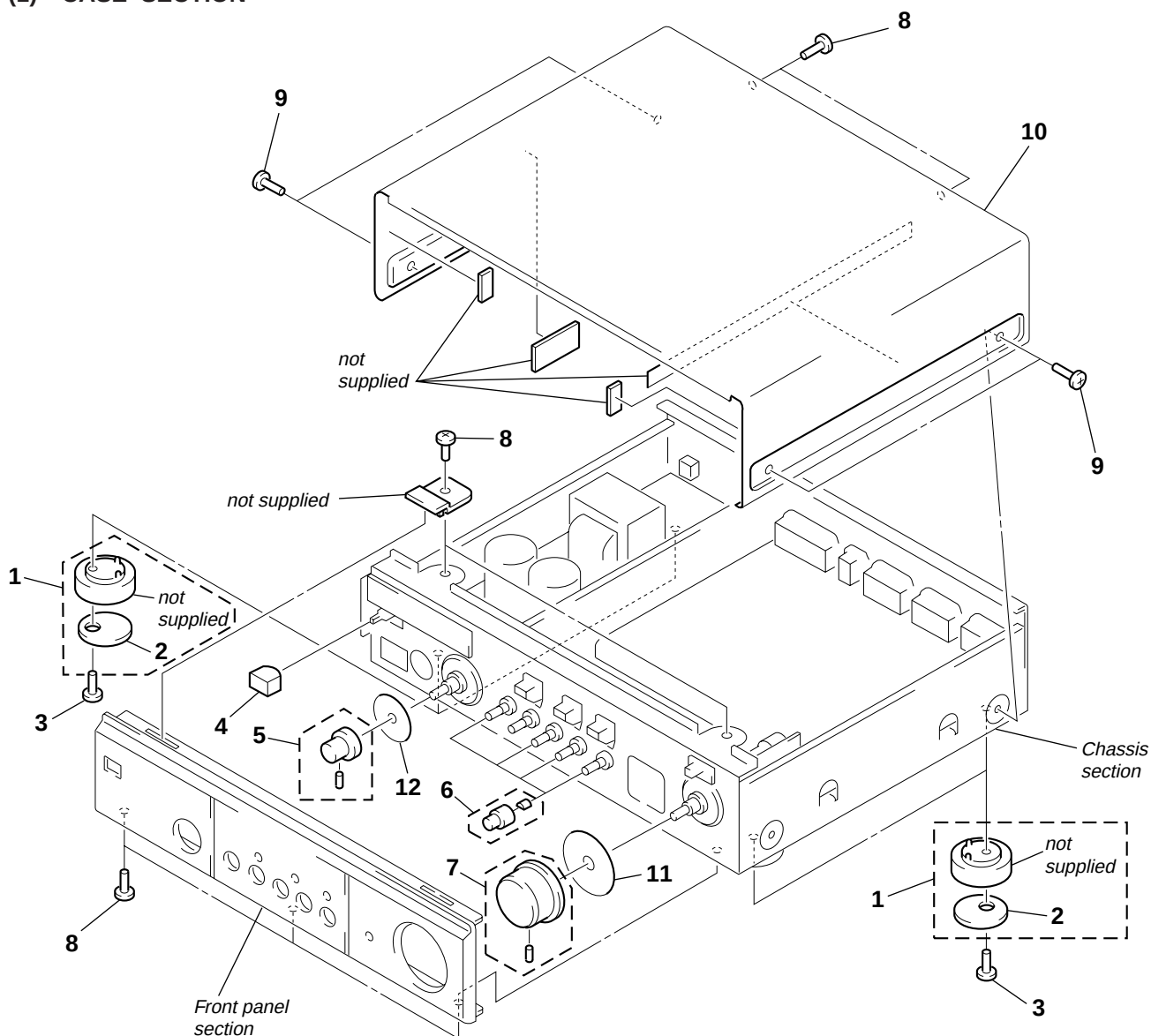
↑
Cabinet's Color

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

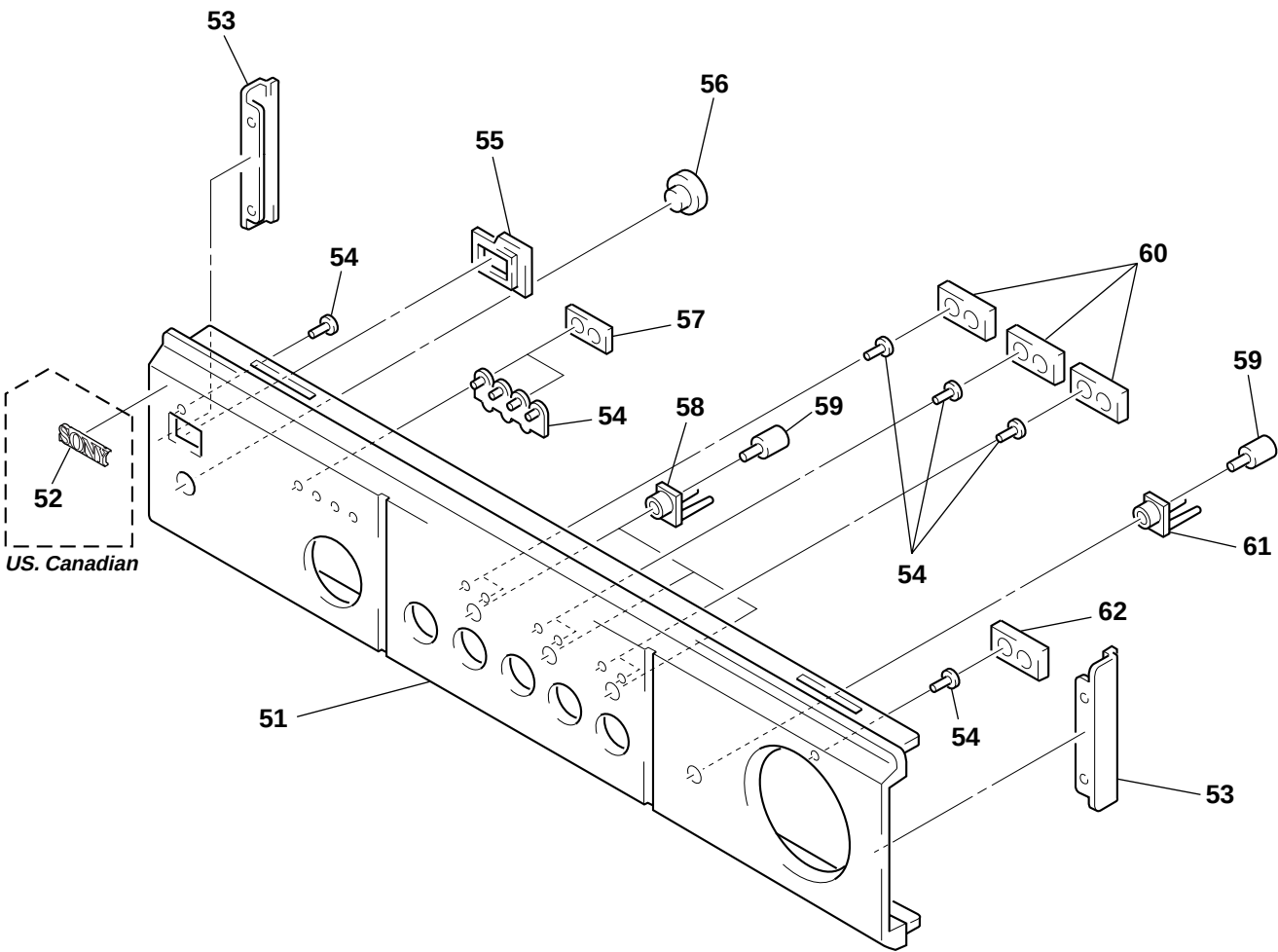
Les composants identifiés par une
marque  sont critiques pour la
sécurité.
Ne les remplacer que par une pièce
portant le numéro spécifié.

(1) CASE SECTION



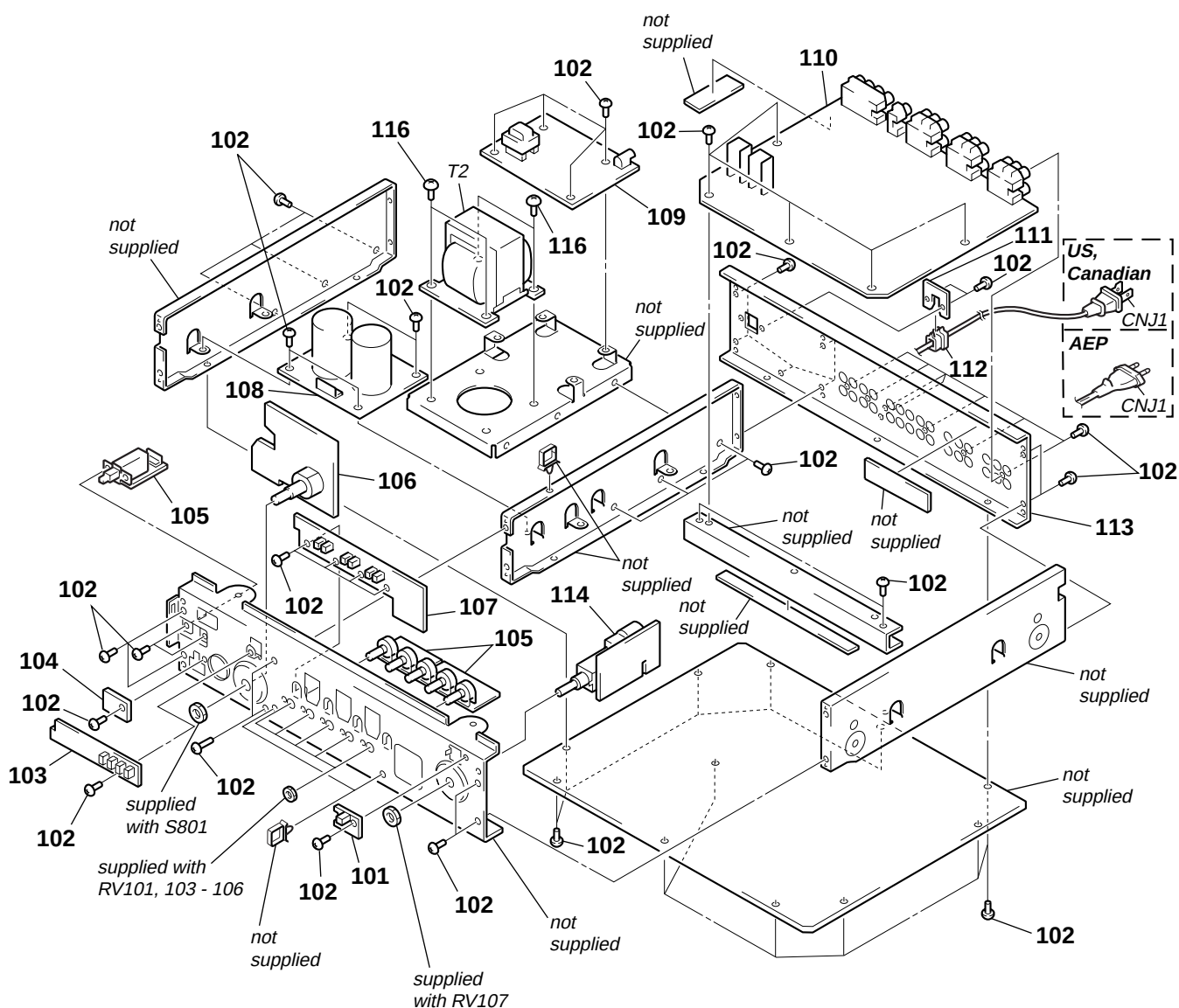
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-4950-540-1	FOOT ASSY		7	4-211-436-01	KNOB (VOL) (GOLD)	
2	4-972-889-01	CUSHION		7	4-211-436-11	KNOB (VOL) (BLACK)	
3	7-685-885-09	SCREW +BVTT 4X16 (S)		8	4-974-510-11	SCREW (+BV 3X8 CU)	
4	X-4950-227-1	BUTTON ASSY, POWER (GOLD)		9	4-976-827-01	SCREW, FLAT HEAD (FOR BLACK)	
4	X-4950-228-1	BUTTON ASSY, POWER (BLACK)		9	4-976-827-11	SCREW, FLAT HEAD (FOR GOLD)	
5	4-211-468-01	KNOB (29-S) (GOLD)		10	4-218-469-01	CASE (410735E) (GOLD)	
5	4-211-468-11	KNOB (29-S) (BLACK)		10	4-218-469-01	CASE (410735E) (BLACK)	
6	4-218-473-01	KNOB (R17) (GOLD)		11	4-219-622-01	WASHER (BLIND)	
6	4-218-473-11	KNOB (R17) (BLACK)		12	4-211-466-01	SHEET (A), LIGHT INTERCEPTION	

(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-218-470-01	PANEL, FRONT (GOLD)		56	4-975-105-31	WINDOW, RAY CATCHER (GOLD)	
51	4-218-470-11	PANEL, FRONT (BLACK)		57	4-219-621-21	PLATE (P), LIGHT INTERCEPTION	
52	4-942-568-41	EMBLEM (NO.5), SONY (for BLACK)		58	4-211-465-11	ESCUTCHEON (LED) (GOLD)	
53	4-218-464-01	PANEL, SIDE (GOLD)		58	4-211-465-21	ESCUTCHEON (LED) (BLACK)	
53	4-218-464-11	PANEL, SIDE (BLACK)		59	4-211-455-01	BUTTON (LED)	
54	4-211-094-01	INDICATOR (6)		60	4-219-621-01	PLATE (P), LIGHT INTERCEPTION	
55	4-921-415-04	ESCUTCHEON, POWER KNOB (BLACK)		61	4-211-465-01	ESCUTCHEON (LED)	
55	4-921-415-13	ESCUTCHEON, POWER KNOB (GOLD)		62	4-219-621-11	PLATE (P), LIGHT INTERCEPTION	
56	4-975-105-01	WINDOW, RAY CATCHER (BLACK)					

(3) CHASSIS SECTION



The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
101	1-673-656-11	VOL LED BOARD	
102	4-974-510-11	SCREW (+BV 3X8 CU)	
103	1-673-062-11	LED BOARD	
104	1-673-061-11	EYEBALL BOARD	
105	1-673-704-11	AC SW BOARD	
106	A-4419-502-A	CONTROL BOARD, COMPLETE	
107	1-673-063-11	MUT BOARD	
108	1-673-059-11	POWER BOARD	
109	A-4419-510-A	AC BOARD, COMPLETE (US, Canadian)	
109	A-4419-511-A	AC BOARD, COMPLETE (AEP)	
110	A-4419-500-A	MAIN BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
* 111	4-923-873-01	BRACKET, CORD STOPPER	
112	2-352-626-01	BUSHING, CORD	
113	4-218-471-11	PANEL, BACK (US, Canadian)	
113	4-218-471-21	PANEL, BACK (AEP)	
114	1-673-057-11	MASTER VOLUME BOARD	
115	1-673-058-11	SUB VOLUME BOARD	
116	7-685-881-09	SCREW +BVTT 4X8 (S)	
Δ CNJ1	1-559-479-11	CORD, POWER (US, Canadian)	
Δ CNJ1	1-575-953-11	CORD, POWER (AEP)	
Δ T2	1-433-651-11	TRANSFORMER, POWER (US, Canadian)	
Δ T2	1-433-652-11	TRANSFORMER, POWER (AEP)	

SECTION 6 ELECTRICAL PARTS LIST

AC

AC SW

CONTROL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA. . : μ A. . uPA. . : μ PA. .
uPB. . : μ PB. . uPC. . : μ PC. .
uPD. . : μ PD. .
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-4419-510-A	AC BOARD, COMPLETE (US, Canadian)		R704	1-216-073-00	METAL CHIP 10K 5%	1/10W
	A-4419-511-A	AC BOARD, COMPLETE (AEP)				< RELAY >	
	1-533-293-11	FUSE HOLDER		Δ RY1	1-755-018-11	RELAY	
		< CAPACITOR >				< TRANSFORMER >	
Δ C1	1-113-924-11	CERAMIC 0.0047uF 20% 250V		Δ T1	1-433-735-11	TRANSFORMER, POWER (AEP)	
Δ C2	1-113-924-11	CERAMIC 0.0047uF 20% 250V		Δ T1	1-433-736-11	TRANSFORMER, POWER (US, Canadian)	
C701	1-137-393-11	FILM 0.01uF 5% 100V		*****			
C702	1-126-948-11	ELECT 100uF 20% 35V			1-673-704-11	AC SW BOARD	
C704	1-126-960-11	ELECT 1uF 20% 50V				*****	
		< CONNECTOR >				< CONNECTOR >	
CN1	1-564-321-00	PIN, CONNECTOR 2P		CN4	1-580-629-11	PIN, CONNECTOR 2P	
* CN2	1-564-321-21	PIN, CONNECTOR 2P				< SWITCH >	
CN3	1-580-629-11	PIN, CONNECTOR 2P					
CN122	1-691-765-31	PLUG (MICRO CONNECTOR) 3P		Δ S1	1-572-267-21	SWITCH, PUSH (AC POWER) (1 KEY) (①)	
CN130	1-691-766-21	PLUG (MICRO CONNECTOR) 4P		*****			
		< DIODE >			A-4419-502-A	CONTROL BOARD, COMPLETE	
D703	8-719-801-78	DIODE 1SS184				*****	
D704	8-719-801-78	DIODE 1SS184				< CAPACITOR >	
D705	8-719-200-82	DIODE 11ES2		C801	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V	
D706	8-719-200-82	DIODE 11ES2		C802	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
D707	8-719-200-82	DIODE 11ES2		C803	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V	
D708	8-719-200-82	DIODE 11ES2		C804	1-126-926-11	ELECT 1000uF 20% 10V	
D710	8-719-200-82	DIODE 11ES2		C805	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V	
		< FUSE >		C806	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V	
Δ F1	1-532-279-00	FUSE, TIME-LAG (5A/250V) (AEP)		C807	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V	
Δ F1	1-533-417-11	FUSE GLASS TUBE (1.25A/125V) (US, Canadian)		C808	1-115-339-11	CERAMIC CHIP 0.1uF 10% 50V	
		< JACK >				< CONNECTOR >	
J701	1-563-330-11	JACK (S-LINK)		* CN105	1-568-951-11	PIN, CONNECTOR 2P	
		< TRANSISTOR >		CN112	1-691-765-11	PLUG (MICRO CONNECTOR) 3P	
Q701	8-729-281-54	TRANSISTOR 2SC1815-BL		CN118	1-506-469-11	PIN, CONNECTOR 4P	
		< RESISTOR >		CN120	1-691-765-21	PLUG (MICRO CONNECTOR) 3P	
R701	1-216-065-00	RES, CHIP 4.7K 5% 1/10W		CN121	1-691-765-31	PLUG (MICRO CONNECTOR) 3P	
R702	1-216-073-00	METAL CHIP 10K 5% 1/10W		CN123	1-691-766-11	PLUG (MICRO CONNECTOR) 4P	
R703	1-216-073-00	METAL CHIP 10K 5% 1/10W		* CN125	1-568-955-11	PIN, CONNECTOR 6P	
				CN127	1-506-469-11	PIN, CONNECTOR 4P	
				CN133	1-506-468-11	PIN, CONNECTOR 3P	
				CN135	1-568-955-11	PIN, CONNECTOR 6P	

CONTROL	EYEBALL	LED	MAIN
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Ref. No.	Part No.	Description	Remark		
* CN137	1-568-955-11	PIN, CONNECTOR 6P			
< DIODE >					
D801	8-719-025-33	DIODE 02CZ6.2-TE85L			
D802	8-719-801-78	DIODE 1SS184			
D803	8-719-820-05	DIODE 1SS181			
D804	8-719-820-05	DIODE 1SS181			
D805	8-719-820-05	DIODE 1SS181			
D806	8-719-820-05	DIODE 1SS181			
D807	8-719-801-78	DIODE 1SS184			
D808	8-719-801-78	DIODE 1SS184			
< IC >					
IC801	8-759-590-53	IC TMP87C846N-4D22			
IC802	8-759-188-67	IC X24C01P-S			
IC803	8-759-962-08	IC BA6208			
IC805	8-759-635-63	IC M51943BSL			
< TRANSISTOR >					
Q801	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q802	8-729-424-12	TRANSISTOR UN2112			
Q803	8-729-424-08	TRANSISTOR UN2111			
Q804	8-729-421-22	TRANSISTOR UN2211			
Q805	8-729-421-22	TRANSISTOR UN2211			
Q806	8-729-421-22	TRANSISTOR UN2211			
Q807	8-729-421-22	TRANSISTOR UN2211			
Q808	8-729-421-22	TRANSISTOR UN2211			
Q809	8-729-421-22	TRANSISTOR UN2211			
< RESISTOR >					
R801	1-216-001-00	METAL CHIP 10	5%	1/10W	
R802	1-216-073-00	METAL CHIP 10K	5%	1/10W	
R803	1-216-065-00	RES, CHIP 4.7K	5%	1/10W	
R804	1-216-049-11	RES, CHIP 1K	5%	1/10W	
R805	1-216-073-00	METAL CHIP 10K	5%	1/10W	
R806	1-216-065-00	RES, CHIP 4.7K	5%	1/10W	
R807	1-216-065-00	RES, CHIP 4.7K	5%	1/10W	
R808	1-216-081-00	METAL CHIP 22K	5%	1/10W	
R809	1-216-065-00	RES, CHIP 4.7K	5%	1/10W	
R810	1-216-065-00	RES, CHIP 4.7K	5%	1/10W	
R811	1-216-065-00	RES, CHIP 4.7K	5%	1/10W	
R812	1-216-065-00	RES, CHIP 4.7K	5%	1/10W	
R813	1-216-081-00	METAL CHIP 22K	5%	1/10W	
R814	1-216-081-00	METAL CHIP 22K	5%	1/10W	
R815	1-216-081-00	METAL CHIP 22K	5%	1/10W	
R816	1-216-081-00	METAL CHIP 22K	5%	1/10W	
R817	1-216-065-00	RES, CHIP 4.7K	5%	1/10W	
R818	1-216-073-00	METAL CHIP 10K	5%	1/10W	
R819	1-216-049-11	RES, CHIP 1K	5%	1/10W	
R820	1-216-049-11	RES, CHIP 1K	5%	1/10W	
R821	1-216-049-11	RES, CHIP 1K	5%	1/10W	
R822	1-216-049-11	RES, CHIP 1K	5%	1/10W	
R823	1-216-049-11	RES, CHIP 1K	5%	1/10W	
R824	1-216-049-11	RES, CHIP 1K	5%	1/10W	
R825	1-216-049-11	RES, CHIP 1K	5%	1/10W	
R826	1-216-049-11	RES, CHIP 1K	5%	1/10W	
R827	1-216-049-11	RES, CHIP 1K	5%	1/10W	

Ref. No.	Part No.	Description	Remark			
R832	1-216-065-00	RES, CHIP	4.7K	5%	1/10W	
R833	1-216-065-00	RES, CHIP	4.7K	5%	1/10W	
R834	1-216-065-00	RES, CHIP	4.7K	5%	1/10W	
R838	1-216-049-11	RES, CHIP	1K	5%	1/10W	
R839	1-216-049-11	RES, CHIP	1K	5%	1/10W	
< SWITCH >						
S801	1-572-095-21	SWITCH, ROTARY (INPUT SELECTOR)				
< VIBRATOR >						
X801	1-579-952-11	VIBRATOR, CERAMIC (8MHz)				

	1-673-061-11	EYEBALL BOARD				

< CAPACITOR >						
C809	1-126-382-11	ELECT	100uF	20%	10V	
< CONNECTOR >						
CN119	1-691-765-21	PLUG (MICRO CONNECTOR) 3P				
< IC >						
IC804	8-759-459-83	IC NJL55H400A				
(REMOTE CONTROL RECEIVER)						

	1-673-062-11	LED BOARD				

< CONNECTOR >						
* CN126	1-568-955-11	PIN, CONNECTOR 6P				
< LED >						
D809	8-719-046-46	LED SEL5221S-TH8F (STANDBY)				
D810	8-719-046-38	LED SEL5821A-TH8F (1)				
D811	8-719-046-38	LED SEL5821A-TH8F (2)				
D812	8-719-046-38	LED SEL5821A-TH8F (BYPASS 5.1ch)				
D813	8-719-046-38	LED SEL5821A-TH8F (BYPASS 2ch)				
< RESISTOR >						
R829	1-216-037-00	METAL CHIP	330	5%	1/10W	
R830	1-216-037-00	METAL CHIP	330	5%	1/10W	

	A-4419-500-A	MAIN BOARD, COMPLETE				

*	4-880-403-11	HEAT SINK				
< BUS BAR >						
* BB1	1-560-242-41	BUS BAR 11P				
* BB2	1-560-242-41	BUS BAR 11P				
* BB3	1-560-242-41	BUS BAR 11P				
< CAPACITOR >						
C201	1-136-808-11	FILM	100PF	5%	100V	
C202	1-136-810-11	FILM	220PF	5%	100V	

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
C203	1-125-842-11	FILM	4PF	10%	50V								
C204	1-119-830-11	ELECT	330uF	20%	25V		C501	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C205	1-119-830-11	ELECT	330uF	20%	25V		C502	1-106-343-00	MYLAR	1000PF	5%	200V	
							C503	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C206	1-136-810-11	FILM	220PF	5%	100V		C504	1-106-343-00	MYLAR	1000PF	5%	200V	
C207	1-119-830-11	ELECT	330uF	20%	25V		C505	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C208	1-119-830-11	ELECT	330uF	20%	25V								
C211	1-119-836-21	ELECT	47uF	20%	63V		C506	1-106-343-00	MYLAR	1000PF	5%	200V	
C251	1-136-808-11	FILM	100PF	5%	100V		C507	1-106-343-00	MYLAR	1000PF	5%	200V	
							C508	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C252	1-136-810-11	FILM	220PF	5%	100V		C509	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V	
C253	1-125-842-11	FILM	4PF	10%	50V		C510	1-126-960-11	ELECT	1uF	20%	50V	
C254	1-119-830-11	ELECT	330uF	20%	25V								
C255	1-119-830-11	ELECT	330uF	20%	25V		C511	1-126-960-11	ELECT	1uF	20%	50V	
C256	1-136-810-11	FILM	220PF	5%	100V		C512	1-126-960-11	ELECT	1uF	20%	50V	
							C513	1-126-960-11	ELECT	1uF	20%	50V	
C257	1-119-830-11	ELECT	330uF	20%	25V		C514	1-126-960-11	ELECT	1uF	20%	50V	
C258	1-119-830-11	ELECT	330uF	20%	25V		C515	1-126-960-11	ELECT	1uF	20%	50V	
C261	1-119-836-21	ELECT	47uF	20%	63V								
C301	1-136-808-11	FILM	100PF	5%	100V		C604	1-119-830-11	ELECT	330uF	20%	25V	
C302	1-136-810-11	FILM	220PF	5%	100V		C606	1-128-800-11	ELECT	3600uF	20%	50V	
							C607	1-119-830-11	ELECT	330uF	20%	25V	
C303	1-125-842-11	FILM	4PF	10%	50V		C608	1-125-844-21	FILM	33PF	10%	50V	
C304	1-119-830-11	ELECT	330uF	20%	25V		C609	1-128-800-11	ELECT	3600uF	20%	50V	
C305	1-119-830-11	ELECT	330uF	20%	25V								
C306	1-136-810-11	FILM	220PF	5%	100V		C611	1-119-814-21	ELECT	1000uF	20%	35V	
C307	1-119-830-11	ELECT	330uF	20%	25V		C612	1-130-495-00	MYLAR	0.1uF	5%	50V	
							C613	1-119-793-11	ELECT	1000uF	20%	16V	
C308	1-119-830-11	ELECT	330uF	20%	25V		C614	1-119-815-21	ELECT	2200uF	20%	35V	
C309	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V		C615	1-125-844-21	FILM	33PF	10%	50V	
C310	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V								
C311	1-119-836-21	ELECT	47uF	20%	63V		C616	1-130-495-00	MYLAR	0.1uF	5%	50V	
C351	1-136-808-11	FILM	100PF	5%	100V		C617	1-130-483-00	MYLAR	0.01uF	5%	50V	
							C618	1-130-483-00	MYLAR	0.01uF	5%	50V	
C352	1-136-810-11	FILM	220PF	5%	100V		C619	1-130-483-00	MYLAR	0.01uF	5%	50V	
C353	1-125-842-11	FILM	4PF	10%	50V		C620	1-130-483-00	MYLAR	0.01uF	5%	50V	
C354	1-119-830-11	ELECT	330uF	20%	25V		< CONNECTOR >						
C355	1-119-830-11	ELECT	330uF	20%	25V		CN101	1-564-510-11	PLUG (MICRO CONNECTOR) 6P				
C356	1-136-810-11	FILM	220PF	5%	100V		CN103	1-691-768-41	PLUG (MICRO CONNECTOR) 6P				
C357	1-119-830-11	ELECT	330uF	20%	25V		CN114	1-691-766-11	PLUG (MICRO CONNECTOR) 4P				
C358	1-119-830-11	ELECT	330uF	20%	25V		CN116	1-691-766-31	PLUG (MICRO CONNECTOR) 4P				
C361	1-119-836-21	ELECT	47uF	20%	63V		CN117	1-506-469-11	PIN, CONNECTOR 4P				
C401	1-136-808-11	FILM	100PF	5%	100V								
C402	1-136-810-11	FILM	220PF	5%	100V		CN124	1-691-766-11	PLUG (MICRO CONNECTOR) 4P				
C403	1-125-842-11	FILM	4PF	10%	50V		CN129	1-691-766-21	PLUG (MICRO CONNECTOR) 4P				
C404	1-119-830-11	ELECT	330uF	20%	25V		* CN138	1-568-955-11	PIN, CONNECTOR 6P				
C405	1-119-830-11	ELECT	330uF	20%	25V		* CN139	1-564-915-11	PIN, CONNECTOR 7P				
C406	1-136-810-11	FILM	220PF	5%	100V		CN142	1-691-766-41	PLUG (MICRO CONNECTOR) 4P				
C407	1-119-830-11	ELECT	330uF	20%	25V		< DIODE >						
C408	1-119-830-11	ELECT	330uF	20%	25V		D201	8-719-025-25	DIODE	02CZ3.6-TE85L			
C409	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V		D203	8-719-800-76	DIODE	1SS226			
C410	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V		D204	8-719-800-76	DIODE	1SS226			
C411	1-119-836-21	ELECT	47uF	20%	63V		D205	8-719-800-76	DIODE	1SS226			
C451	1-136-808-11	FILM	100PF	5%	100V		D206	8-719-800-76	DIODE	1SS226			
C452	1-136-810-11	FILM	220PF	5%	100V		D251	8-719-025-25	DIODE	02CZ3.6-TE85L			
C453	1-125-842-11	FILM	4PF	10%	50V		D253	8-719-800-76	DIODE	1SS226			
C454	1-119-830-11	ELECT	330uF	20%	25V		D254	8-719-800-76	DIODE	1SS226			
C455	1-119-830-11	ELECT	330uF	20%	25V		D255	8-719-800-76	DIODE	1SS226			
C456	1-136-810-11	FILM	220PF	5%	100V		D256	8-719-800-76	DIODE	1SS226			
C457	1-119-830-11	ELECT	330uF	20%	25V		D301	8-719-025-25	DIODE	02CZ3.6-TE85L			
C458	1-119-830-11	ELECT	330uF	20%	25V		D303	8-719-800-76	DIODE	1SS226			
C459	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V		D304	8-719-800-76	DIODE	1SS226			
C460	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V		D305	8-719-800-76	DIODE	1SS226			
C461	1-119-836-21	ELECT	47uF	20%	63V								

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D306	8-719-800-76	DIODE 1SS226		Q211	8-729-018-59	TRANSISTOR 2SB1375-LC	
D307	8-719-801-78	DIODE 1SS184		Q251	8-729-023-11	FET 2SK2145GTE85L	
D308	8-719-801-78	DIODE 1SS184		Q252	8-729-230-49	TRANSISTOR 2SC2712-YG	
D351	8-719-025-25	DIODE 02CZ3.6-TE85L		Q253	8-729-216-22	TRANSISTOR 2SA1162-G	
D353	8-719-800-76	DIODE 1SS226		Q254	8-729-216-22	TRANSISTOR 2SA1162-G	
D354	8-719-800-76	DIODE 1SS226					
D355	8-719-800-76	DIODE 1SS226		Q255	8-729-216-22	TRANSISTOR 2SA1162-G	
D356	8-719-800-76	DIODE 1SS226		Q256	8-729-216-22	TRANSISTOR 2SA1162-G	
D401	8-719-025-25	DIODE 02CZ3.6-TE85L		Q257	8-729-230-49	TRANSISTOR 2SC2712-YG	
D403	8-719-800-76	DIODE 1SS226		Q258	8-729-230-49	TRANSISTOR 2SC2712-YG	
D404	8-719-800-76	DIODE 1SS226		Q259	8-729-216-22	TRANSISTOR 2SA1162-G	
D405	8-719-800-76	DIODE 1SS226					
D406	8-719-800-76	DIODE 1SS226		Q260	8-729-018-60	TRANSISTOR 2SD2012-LC	
D407	8-719-801-78	DIODE 1SS184		Q261	8-729-018-59	FET 2SB1375-LC	
D408	8-719-801-78	DIODE 1SS184		Q301	8-729-023-11	TRANSISTOR 2SK2145GTE85L	
D451	8-719-025-25	DIODE 02CZ3.6-TE85L		Q302	8-729-230-49	TRANSISTOR 2SC2712-YG	
D453	8-719-800-76	DIODE 1SS226		Q303	8-729-216-22	TRANSISTOR 2SA1162-G	
D454	8-719-800-76	DIODE 1SS226					
D455	8-719-800-76	DIODE 1SS226		Q304	8-729-216-22	TRANSISTOR 2SA1162-G	
D456	8-719-800-76	DIODE 1SS226		Q305	8-729-216-22	TRANSISTOR 2SA1162-G	
D457	8-719-801-78	DIODE 1SS184		Q306	8-729-216-22	TRANSISTOR 2SA1162-G	
D458	8-719-801-78	DIODE 1SS184		Q307	8-729-230-49	TRANSISTOR 2SC2712-YG	
D501	8-719-801-78	DIODE 1SS184		Q308	8-729-230-49	TRANSISTOR 2SC2712-YG	
D502	8-719-801-78	DIODE 1SS184					
D503	8-719-801-78	DIODE 1SS184		Q309	8-729-216-22	TRANSISTOR 2SA1162-G	
D504	8-719-801-78	DIODE 1SS184		Q310	8-729-018-60	TRANSISTOR 2SD2012-LC	
D505	8-719-801-78	DIODE 1SS184		Q311	8-729-018-59	TRANSISTOR 2SB1375-LC	
D603	8-719-025-34	DIODE 02CZ6.8-TE85L		Q351	8-729-023-11	FET 2SK2145GTE85L	
D604	8-719-025-34	DIODE 02CZ6.8-TE85L		Q352	8-729-230-49	TRANSISTOR 2SC2712-YG	
D605	8-719-200-82	DIODE 11ES2					
< IC >				Q353	8-729-216-22	TRANSISTOR 2SA1162-G	
IC601	8-759-605-03	IC M5F78M24		Q354	8-729-216-22	TRANSISTOR 2SA1162-G	
IC602	8-759-604-35	IC M5F78M05L		Q355	8-729-216-22	TRANSISTOR 2SA1162-G	
< JACK >				Q356	8-729-216-22	TRANSISTOR 2SA1162-G	
J101	1-785-489-11	JACK, PIN 6P (BYPASS 5.1ch: FRONT, REAR, CENTER, WOOFER)		Q357	8-729-230-49	TRANSISTOR 2SC2712-YG	
J102	1-785-868-21	JACK, PIN 2P (BYPASS 2ch)					
J103	1-785-489-11	JACK, PIN 6P (INPUT 2: FRONT, REAR, CENTER, WOOFER)		Q358	8-729-230-49	TRANSISTOR 2SC2712-YG	
J104	1-785-489-11	JACK, PIN 6P (INPUT 1: FRONT, REAR, CENTER, WOOFER)		Q359	8-729-216-22	TRANSISTOR 2SA1162-G	
J105	1-784-934-11	JACK, PIN 4P (PRE OUT: FRONT, REAR)		Q360	8-729-018-60	TRANSISTOR 2SD2012-LC	
J106	1-785-286-11	JACK, PIN 4P (PRE OUT: CENTER, WOOFER)		Q361	8-729-018-59	TRANSISTOR 2SB1375-LC	
< TRANSISTOR >				Q401	8-729-023-11	FET 2SK2145GTE85L	
Q201	8-729-023-11	FET 2SK2145GTE85L					
Q202	8-729-230-49	TRANSISTOR 2SC2712-YG		Q402	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q203	8-729-216-22	TRANSISTOR 2SA1162-G		Q403	8-729-216-22	TRANSISTOR 2SA1162-G	
Q204	8-729-216-22	TRANSISTOR 2SA1162-G		Q404	8-729-216-22	TRANSISTOR 2SA1162-G	
Q205	8-729-216-22	TRANSISTOR 2SA1162-G		Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G		Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
Q207	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q208	8-729-230-49	TRANSISTOR 2SC2712-YG		Q407	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q209	8-729-216-22	TRANSISTOR 2SA1162-G		Q408	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q210	8-729-018-60	TRANSISTOR 2SD2012-LC		Q409	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q410	8-729-018-60	TRANSISTOR 2SD2012-LC	
				Q411	8-729-018-59	TRANSISTOR 2SB1375-LC	
				Q451	8-729-023-11	FET 2SK2145GTE85L	
				Q452	8-729-230-49	TRANSISTOR 2SC2712-YG	
				Q453	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q454	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q455	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q456	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q457	8-729-230-49	TRANSISTOR 2SC2712-YG	
				Q458	8-729-230-49	TRANSISTOR 2SC2712-YG	
				Q459	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q460	8-729-018-60	TRANSISTOR 2SD2012-LC	
				Q461	8-729-018-59	TRANSISTOR 2SB1375-LC	
				Q501	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q502	8-729-421-22	TRANSISTOR UN2211	

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
Q503	8-729-216-22	TRANSISTOR	2SA1162-G				R216	1-259-983-11	CARBON MELF	100	2%	1/8W	
Q504	8-729-421-22	TRANSISTOR	UN2211				R217	1-259-980-11	CARBON MELF	56	2%	1/8W	
Q505	8-729-216-22	TRANSISTOR	2SA1162-G				R218	1-259-980-11	CARBON MELF	56	2%	1/8W	
Q506	8-729-421-22	TRANSISTOR	UN2211				R219	1-249-415-11	CARBON	680	5%	1/4W	
Q507	8-729-216-22	TRANSISTOR	2SA1162-G				R220	1-259-986-11	CARBON MELF	180	2%	1/8W	
Q508	8-729-421-22	TRANSISTOR	UN2211				R251	1-259-983-11	CARBON MELF	100	2%	1/8W	
Q509	8-729-216-22	TRANSISTOR	2SA1162-G				R252	1-260-032-11	CARBON MELF	1M	2%	1/8W	
Q510	8-729-421-22	TRANSISTOR	UN2211				R253	1-259-992-11	CARBON MELF	560	2%	1/8W	
Q512	8-729-216-22	TRANSISTOR	2SA1162-G				R254	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
Q513	8-729-421-22	TRANSISTOR	UN2211				R255	1-247-751-11	CARBON	820	5%	1/2W	
Q514	8-729-216-22	TRANSISTOR	2SA1162-G				R256	1-259-989-11	CARBON MELF	330	2%	1/8W	
Q515	8-729-421-22	TRANSISTOR	UN2211				R257	1-259-983-11	CARBON MELF	100	2%	1/8W	
Q516	8-729-216-22	TRANSISTOR	2SA1162-G				R258	1-259-983-11	CARBON MELF	100	2%	1/8W	
Q517	8-729-421-22	TRANSISTOR	UN2211				R259	1-260-010-11	CARBON MELF	15K	2%	1/8W	
Q518	8-729-216-22	TRANSISTOR	2SA1162-G				R260	1-259-991-11	CARBON MELF	470	2%	1/8W	
Q519	8-729-421-22	TRANSISTOR	UN2211				R261	1-247-761-11	CARBON	5.6K	5%	1/2W	
Q520	8-729-216-22	TRANSISTOR	2SA1162-G				R262	1-260-002-11	CARBON MELF	3.3K	2%	1/8W	
Q521	8-729-421-22	TRANSISTOR	UN2211				R263	1-260-010-11	CARBON MELF	15K	2%	1/8W	
Q601	8-729-232-69	FET	2SK208GR3				R264	1-259-987-11	CARBON MELF	220	2%	1/8W	
Q602	8-729-230-49	TRANSISTOR	2SC2712-YG				R265	1-247-739-11	CARBON	100	5%	1/2W	
Q603	8-729-209-15	TRANSISTOR	2SD2012				R266	1-259-983-11	CARBON MELF	100	2%	1/8W	
Q604	8-729-232-69	FET	2SK208GR3				R267	1-259-980-11	CARBON MELF	56	2%	1/8W	
Q605	8-729-216-22	TRANSISTOR	2SA1162-G				R268	1-259-980-11	CARBON MELF	56	2%	1/8W	
Q606	8-729-141-83	TRANSISTOR	2SB1094-LK				R269	1-249-415-11	CARBON	680	5%	1/4W	
Q607	8-729-230-49	TRANSISTOR	2SC2712-YG				R270	1-259-986-11	CARBON MELF	180	2%	1/8W	
Q608	8-729-216-22	TRANSISTOR	2SA1162-G				R301	1-259-983-11	CARBON MELF	100	2%	1/8W	
Q609	8-729-216-22	TRANSISTOR	2SA1162-G				R302	1-260-032-11	CARBON MELF	1M	2%	1/8W	
Q610	8-729-230-49	TRANSISTOR	2SC2712-YG				R303	1-259-992-11	CARBON MELF	560	2%	1/8W	
< RESISTOR >							R304	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
R117	1-259-995-11	CARBON MELF	1K	2%	1/8W		R305	1-247-751-11	CARBON	820	5%	1/2W	
R120	1-259-995-11	CARBON MELF	1K	2%	1/8W		R306	1-259-989-11	CARBON MELF	330	2%	1/8W	
R121	1-259-995-11	CARBON MELF	1K	2%	1/8W		R307	1-259-983-11	CARBON MELF	100	2%	1/8W	
R123	1-259-995-11	CARBON MELF	1K	2%	1/8W		R308	1-259-983-11	CARBON MELF	100	2%	1/8W	
R124	1-259-995-11	CARBON MELF	1K	2%	1/8W		R309	1-260-010-11	CARBON MELF	15K	2%	1/8W	
R127	1-259-995-11	CARBON MELF	1K	2%	1/8W		R310	1-259-991-11	CARBON MELF	470	2%	1/8W	
R128	1-259-995-11	CARBON MELF	1K	2%	1/8W		R311	1-247-761-11	CARBON	5.6K	5%	1/2W	
R131	1-259-995-11	CARBON MELF	1K	2%	1/8W		R312	1-260-002-11	CARBON MELF	3.3K	2%	1/8W	
R132	1-259-995-11	CARBON MELF	1K	2%	1/8W		R313	1-260-010-11	CARBON MELF	15K	2%	1/8W	
R135	1-259-995-11	CARBON MELF	1K	2%	1/8W		R314	1-259-987-11	CARBON MELF	220	2%	1/8W	
R136	1-259-995-11	CARBON MELF	1K	2%	1/8W		R315	1-247-739-11	CARBON	100	5%	1/2W	
R139	1-259-995-11	CARBON MELF	1K	2%	1/8W		R316	1-259-983-11	CARBON MELF	100	2%	1/8W	
R201	1-259-983-11	CARBON MELF	100	2%	1/8W		R317	1-259-980-11	CARBON MELF	56	2%	1/8W	
R202	1-260-032-11	CARBON MELF	1M	2%	1/8W		R318	1-259-980-11	CARBON MELF	56	2%	1/8W	
R203	1-259-992-11	CARBON MELF	560	2%	1/8W		R319	1-249-415-11	CARBON	680	5%	1/4W	
R204	1-259-999-11	CARBON MELF	2.2K	2%	1/8W		R320	1-259-986-11	CARBON MELF	180	2%	1/8W	
R205	1-247-751-11	CARBON	820	5%	1/2W		R321	1-247-751-11	CARBON	820	5%	1/2W	
R206	1-259-989-11	CARBON MELF	330	2%	1/8W		R322	1-249-658-11	CARBON	240	5%	1/2W	
R207	1-259-983-11	CARBON MELF	100	2%	1/8W		R351	1-259-983-11	CARBON MELF	100	2%	1/8W	
R208	1-259-983-11	CARBON MELF	100	2%	1/8W		R352	1-260-032-11	CARBON MELF	1M	2%	1/8W	
R209	1-260-010-11	CARBON MELF	15K	2%	1/8W		R353	1-259-992-11	CARBON MELF	560	2%	1/8W	
R210	1-259-991-11	CARBON MELF	470	2%	1/8W		R354	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
R211	1-247-761-11	CARBON	5.6K	5%	1/2W		R355	1-247-751-11	CARBON	820	5%	1/2W	
R212	1-260-002-11	CARBON MELF	3.3K	2%	1/8W		R356	1-259-989-11	CARBON MELF	330	2%	1/8W	
R213	1-260-010-11	CARBON MELF	15K	2%	1/8W		R357	1-259-983-11	CARBON MELF	100	2%	1/8W	
R214	1-259-987-11	CARBON MELF	220	2%	1/8W		R358	1-259-983-11	CARBON MELF	100	2%	1/8W	
R215	1-247-739-11	CARBON	100	5%	1/2W		R359	1-260-010-11	CARBON MELF	15K	2%	1/8W	
							R360	1-259-991-11	CARBON MELF	470	2%	1/8W	
							R361	1-247-761-11	CARBON	5.6K	5%	1/2W	

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R362	1-260-002-11	CARBON MELF	3.3K	2%	1/8W	R503	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R363	1-260-010-11	CARBON MELF	15K	2%	1/8W	R504	1-216-025-00	RES, CHIP	100	5%	1/10W
R364	1-259-987-11	CARBON MELF	220	2%	1/8W	R505	1-216-079-00	METAL CHIP	18K	5%	1/10W
R365	1-247-739-11	CARBON	100	5%	1/2W	R506	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R366	1-259-983-11	CARBON MELF	100	2%	1/8W	R507	1-216-001-00	METAL CHIP	10	5%	1/10W
						R508	1-216-079-00	METAL CHIP	18K	5%	1/10W
R367	1-259-980-11	CARBON MELF	56	2%	1/8W	R509	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R368	1-259-980-11	CARBON MELF	56	2%	1/8W	R510	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R369	1-249-415-11	CARBON	680	5%	1/4W						
R370	1-259-986-11	CARBON MELF	180	2%	1/8W	R511	1-216-079-00	METAL CHIP	18K	5%	1/10W
R371	1-247-751-11	CARBON	820	5%	1/2W	R512	1-216-013-00	METAL CHIP	33	5%	1/10W
						R513	1-216-025-00	RES, CHIP	100	5%	1/10W
R372	1-249-658-11	CARBON	240	5%	1/2W	R514	1-216-079-00	METAL CHIP	18K	5%	1/10W
R401	1-259-983-11	CARBON MELF	100	2%	1/8W	R515	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R402	1-260-032-11	CARBON MELF	1M	2%	1/8W						
R403	1-259-992-11	CARBON MELF	560	2%	1/8W	R516	1-216-025-00	RES, CHIP	100	5%	1/10W
R404	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	R517	1-216-079-00	METAL CHIP	18K	5%	1/10W
						R518	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R405	1-247-751-11	CARBON	820	5%	1/2W	R519	1-216-017-00	RES, CHIP	47	5%	1/10W
R406	1-259-989-11	CARBON MELF	330	2%	1/8W	R520	1-216-079-00	METAL CHIP	18K	5%	1/10W
R407	1-259-983-11	CARBON MELF	100	2%	1/8W						
R408	1-259-983-11	CARBON MELF	100	2%	1/8W	R521	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R409	1-260-010-11	CARBON MELF	15K	2%	1/8W	R522	1-216-017-00	RES, CHIP	47	5%	1/10W
						R523	1-216-079-00	METAL CHIP	18K	5%	1/10W
R410	1-259-991-11	CARBON MELF	470	2%	1/8W	R524	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R411	1-247-761-11	CARBON	5.6K	5%	1/2W	R525	1-216-025-00	RES, CHIP	100	5%	1/10W
R412	1-260-002-11	CARBON MELF	3.3K	2%	1/8W						
R413	1-260-010-11	CARBON MELF	15K	2%	1/8W	R526	1-216-079-00	METAL CHIP	18K	5%	1/10W
R414	1-259-987-11	CARBON MELF	220	2%	1/8W	R527	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
						R528	1-216-025-00	RES, CHIP	100	5%	1/10W
R415	1-247-739-11	CARBON	100	5%	1/2W	R529	1-216-079-00	METAL CHIP	18K	5%	1/10W
R416	1-259-983-11	CARBON MELF	100	2%	1/8W	R530	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R417	1-259-980-11	CARBON MELF	56	2%	1/8W						
R418	1-259-980-11	CARBON MELF	56	2%	1/8W	R607	1-259-987-11	CARBON MELF	220	2%	1/8W
R419	1-249-415-11	CARBON	680	5%	1/4W	R608	1-259-992-11	CARBON MELF	560	2%	1/8W
						R609	1-259-996-11	CARBON MELF	1.2K	2%	1/8W
R420	1-259-986-11	CARBON MELF	180	2%	1/8W	R610	1-216-025-00	RES, CHIP	100	5%	1/10W
R421	1-247-751-11	CARBON	820	5%	1/2W	R611	1-259-987-11	CARBON MELF	220	2%	1/8W
R422	1-249-658-11	CARBON	240	5%	1/2W						
R451	1-259-983-11	CARBON MELF	100	2%	1/8W	R612	1-259-992-11	CARBON MELF	560	2%	1/8W
R452	1-260-032-11	CARBON MELF	1M	2%	1/8W	R613	1-259-996-11	CARBON MELF	1.2K	2%	1/8W
						R614	1-216-025-00	RES, CHIP	100	5%	1/10W
R453	1-259-992-11	CARBON MELF	560	2%	1/8W	R615	1-259-983-11	CARBON MELF	100	2%	1/8W
R454	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	R616	1-259-983-11	CARBON MELF	100	2%	1/8W
R455	1-247-751-11	CARBON	820	5%	1/2W						
R456	1-259-989-11	CARBON MELF	330	2%	1/8W	R617	1-259-997-11	CARBON MELF	1.5K	2%	1/8W
R457	1-259-983-11	CARBON MELF	100	2%	1/8W	R618	1-259-994-11	CARBON MELF	820	2%	1/8W
						R619	1-259-994-11	CARBON MELF	820	2%	1/8W
R458	1-259-983-11	CARBON MELF	100	2%	1/8W	R620	1-259-997-11	CARBON MELF	1.5K	2%	1/8W
R459	1-260-010-11	CARBON MELF	15K	2%	1/8W	R621	1-260-017-11	CARBON MELF	56K	2%	1/8W
R460	1-259-991-11	CARBON MELF	470	2%	1/8W						
R461	1-247-761-11	CARBON	5.6K	5%	1/2W	R622	1-260-017-11	CARBON MELF	56K	2%	1/8W
R462	1-260-002-11	CARBON MELF	3.3K	2%	1/8W						
						< RELAY >					
R463	1-260-010-11	CARBON MELF	15K	2%	1/8W	RY101	1-755-295-11	RELAY			
R464	1-259-987-11	CARBON MELF	220	2%	1/8W	RY102	1-755-295-11	RELAY			
R465	1-247-739-11	CARBON	100	5%	1/2W	RY103	1-755-295-11	RELAY			
R466	1-259-983-11	CARBON MELF	100	2%	1/8W	RY104	1-755-295-11	RELAY			
R467	1-259-980-11	CARBON MELF	56	2%	1/8W	RY105	1-755-295-11	RELAY			
R468	1-259-980-11	CARBON MELF	56	2%	1/8W	RY106	1-755-295-11	RELAY			
R469	1-249-415-11	CARBON	680	5%	1/4W	RY107	1-755-295-11	RELAY			
R470	1-259-986-11	CARBON MELF	180	2%	1/8W	RY108	1-755-295-11	RELAY			
R471	1-247-751-11	CARBON	820	5%	1/2W	RY109	1-755-295-11	RELAY			
R472	1-249-658-11	CARBON	240	5%	1/2W	RY110	1-755-295-11	RELAY			
R501	1-216-013-00	METAL CHIP	33	5%	1/10W	RY111	1-755-295-11	RELAY			
R502	1-216-079-00	METAL CHIP	18K	5%	1/10W						

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
RY112	1-755-295-11	RELAY											
RY113	1-755-295-11	RELAY						1-673-059-11	POWER BOARD				
RY301	1-755-295-11	RELAY							*****				
RY302	1-755-295-11	RELAY							< CAPACITOR >				
RY351	1-755-295-11	RELAY											
RY352	1-755-295-11	RELAY					C602	1-128-799-11	ELECT	6800uF	20%	42V	
RY401	1-755-295-11	RELAY					C603	1-128-799-11	ELECT	6800uF	20%	42V	
RY402	1-755-295-11	RELAY					C610	1-119-815-21	ELECT	2200uF	20%	35V	
RY451	1-755-295-11	RELAY							< CONNECTOR >				
RY452	1-755-295-11	RELAY											
*****						* CN131	1-564-243-11	PIN, CONNECTOR 6P					
							* CN140	1-564-915-11	PIN, CONNECTOR 7P				
	1-673-057-11	MASTER VOLUME BOARD							< DIODE >				

		< CAPACITOR >					D601	8-719-302-38	DIODE RBV-602-01				
C101	1-136-165-00	FILM	0.1uF	5%	50V	D602	8-719-510-53	DIODE D4SB60L					
		< CONNECTOR >							< RESISTOR >				
CN108	1-691-768-11	PLUG (MICRO CONNECTOR) 6P					△R603	1-219-173-51	FUSIBLE	4.7	5%	1/2W F	
CN110	1-691-767-11	PLUG (MICRO CONNECTOR) 6P					△R604	1-219-173-51	FUSIBLE	4.7	5%	1/2W F	
CN111	1-691-765-11	PLUG (MICRO CONNECTOR) 3P					△R605	1-219-173-51	FUSIBLE	4.7	5%	1/2W F	
CN113	1-691-766-11	PLUG (MICRO CONNECTOR) 4P					*****						
CN115	1-691-766-31	PLUG (MICRO CONNECTOR) 4P						1-673-058-11	SUB VOLUME BOARD				

CN141	1-691-766-41	PLUG (MICRO CONNECTOR) 4P							< CONNECTOR >				
		< VARIABLE RESISTOR >											
RV107	1-225-757-11	RES, VAR, CARBON (WITH MOTOR) 30X6 (MASTER VOLUME)					CN102	1-564-510-11	PLUG (MICRO CONNECTOR) 6P				
*****						CN104	1-691-768-41	PLUG (MICRO CONNECTOR) 6P					
							CN107	1-691-768-11	PLUG (MICRO CONNECTOR) 6P				
							CN109	1-691-767-11	PLUG (MICRO CONNECTOR) 6P				
	1-673-063-11	MUT BOARD							< VARIABLE RESISTOR >				

		< CONNECTOR >					RV101	1-225-819-11	RES, VAR, CARBON 50K/50K (FRONT BALANCE)				
CN128	1-506-469-11	PIN, CONNECTOR 4P					RV103	1-225-758-11	RES, VAR, CARBON 50K/50K (CENTER LEVEL)				
CN134	1-506-468-11	PIN, CONNECTOR 3P					RV104	1-225-758-11	RES, VAR, CARBON 50K/50K (REAR L LEVEL)				
CN136	1-568-955-11	PIN, CONNECTOR 6P					RV105	1-225-758-11	RES, VAR, CARBON 50K/50K (REAR R LEVEL)				
							RV106	1-225-758-11	RES, VAR, CARBON 50K/50K (WOOFER LEVEL)				
		< LED >					*****						
D819	8-719-313-50	LED SEL6810A-TH12 (+6dB)											
D820	8-719-313-50	LED SEL6810A-TH12 (+12dB)											
D821	8-719-313-50	LED SEL6810A-TH12 (+6dB)						1-673-656-11	VOL LED BOARD				
D822	8-719-313-50	LED SEL6810A-TH12 (+12dB)							*****				
D823	8-719-313-50	LED SEL6810A-TH12 (+6dB)							< CONNECTOR >				
D824	8-719-313-50	LED SEL6810A-TH12 (+12dB)					CN106	1-506-481-11	PIN, CONNECTOR 2P				
		< RESISTOR >							< LED >				
R828	1-216-033-00	METAL CHIP	220	5%	1/10W	D815	8-719-313-45	LED SEL6810A-TH10 (MASTER VOLUME)					
R835	1-216-037-00	METAL CHIP	330	5%	1/10W			< RESISTOR >					
R836	1-216-037-00	METAL CHIP	330	5%	1/10W								
R837	1-216-037-00	METAL CHIP	330	5%	1/10W								
		< SWITCH >					R831	1-216-037-00	METAL CHIP	330	5%	1/10W	
*****						*****							
S802	1-570-101-11	SWITCH, KEY BOARD (MUTING)											
S803	1-571-800-11	SWITCH, KEY BOARD (CENTER LEVEL)											
S804	1-571-800-11	SWITCH, KEY BOARD (REAR LEVEL L/R)											
S805	1-571-800-11	SWITCH, KEY BOARD (WOOFER LEVEL)											

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

TA-P9000ES

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	

△ CNJ1	1-559-479-11	CORD, POWER (US, Canadian)	
△ CNJ1	1-575-953-11	CORD, POWER (AEP)	
△ T2	1-433-651-11	TRANSFORMER, POWER (US, Canadian)	
△ T2	1-433-652-11	TRANSFORMER, POWER (AEP)	

		ACCESSORIES & PACKING MATERIALS	

	1-418-243-11	REMOTE COMMANDER (RM-P9000)	
	1-590-925-31	CORD, CONNECTION (AUDIO)	
	1-783-106-11	CORD, CONNECTION (S-LINK)	
	3-866-165-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH)	
	3-866-165-21	MANUAL, INSTRUCTION (GERMAN, SPANISH, DUTCH, SWEDISH, ITALIAN, PORTUGUESE) (AEP)	
	4-981-643-01	COVER, BATTERY (FOR RM-P9000)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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